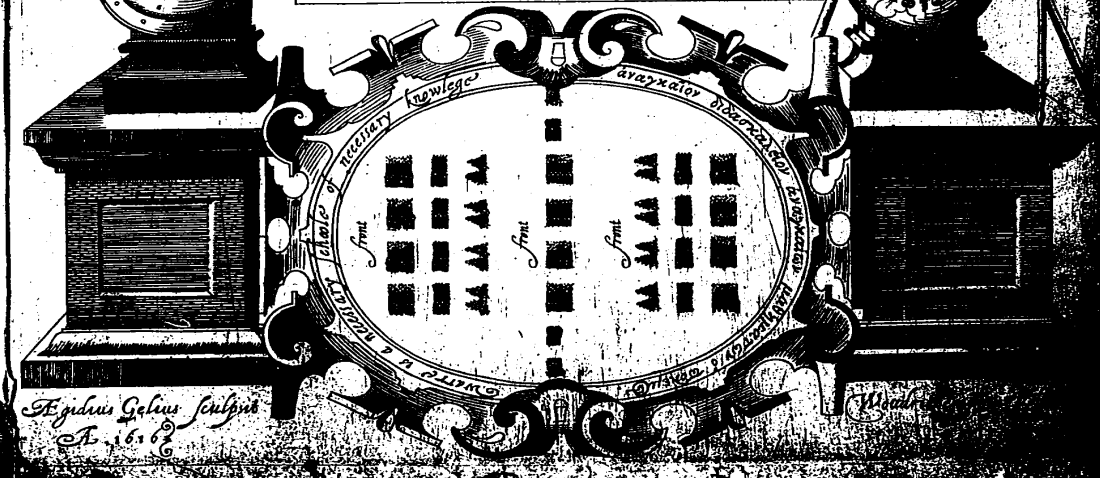




*The Peerless Macedon, chyld of triumph vnto
presents his armes, his arte of warre, & fortie vnto*

THE TACTIKS OF ALIAN

Or art of embattailing an army
after y^e Grecian manner
*Englished & illustrated wth figures throughout
& notes vpon y^e Chapters of y^e ordinary
motions of y^e Phalange by J.B.*
*The exercise military of y^e English by y^e order
of that great Generall Maurice of
Nassau Prince of Orange &c
Gouernor & Generall of y^e
vnted Provinces is added*
*At London for Laurence Lish & are to be sold at
his shoppe at y^e signe of 3 Tygers head
in Pauls Church-yard*



*Agrippinus Galius sculptor
A. 1616*



Harvard College Library
Bowie Collection
Gift of
Mrs. E. D. Brandegee
Nov. 9, 1908.



TO THE HIGH AND
MIGHTY CHARLES, ONLY

SONNE OF HIS MAIESTY, PRINCE OF
Wales, DUKE of Cornwall, Yorke, and Albany, MAR-
QVISE of Ormont, EARLE of Chester, and Ross,
LORD of Admanoch, and KNIGHT of the
most noble order of the Garter.



How much the *Gracians* excelled all o-
ther Nations in the Sciences called
Liberall, is better knowne in gene-
rall, then needfull at this time parti-
cularly to be rehearsed to your *High-
nesse*. The *Romans* themselues albeit
otherwise ambitious, and out of mea-
sure thirsty of honour, and challen-
ging to themselues the highest degree of grauity, constan-
cie, greatnesse of minde, wisdome, faith, and skill of war,
contended not herein, but freely left them the possession
of that praise vnquestioned. For warre it is not my pur-
pose at this time to make comparifon, or commit the two
Nations together. The controuersie is already moued by
other, and hangeth vndecided in the Court of learning.
Thus much, me thinks, I may truly affirme, that the *Gra-
cians* were the first, that out of variety of actions, and long
experience reduced the knowledge of Armes into an Arte,
and gaue precepts for the orderly mouing a Battaille, and
taught, that the moments of victory rested not in the

hands of multitudes, but in a few men rightly instructed to manage armes, and trained vp in the obseruation of the discipline of the field. In which regard they had almost in all Cities amongst them Masters of Armes, whom they called *Tacticks*, which deliuered the Arte Military to such, as were desirous to learne. Out of whose Schooles issued those chiefs of warre in number so many, in skill so exquisite, in valor so peerelesse, in all vertues becomming great Generals so admirable, that no Nation of *Europe* euen to this day hath been able to match, much lesse to ouer-match their fame, and glory. And the time was when the *Lacedemonians* exceeded the rest in Martiall skill, and were thought to be the best Souldiers of *Greece*, by meanes whereof they aduanced themselues to the Principality of *Greece*, which they held with such reputation, that an enemy by the space of 500 yeares was not seene within their Territory. Till at last growing insolent, and surfeiting of, and being not able to brooke their owne fortune, they sought to oppresse, and with wrong and force to possess the City of *Thebes*, and stirred vp *Epaminondas* a *Theban* by birth, and from his tender yeares nourished by his fathers care in the study of Philosophy, and the science of Armes, to oppose against them, who in two battailes, the one at *Leuctra*, the other at *Mantineia* so broke their forces, that from that day forth they were neuer able to recouer their wonted authority, and power in the field. *Philip* the sonne of *Amyntas* King of *Macedonia*, being but a priuate man, was deliuered as a hostage to the *Thebans*, & brought vp in the same house and learning with *Epaminondas*. He afterward became King of *Macedonia*; which being of it selfe but a poore kingdome, and before his time sometimes kept vnder by the *Athenians*, sometimes by the *Lacedemonians*, sometimes by the *Thebans*, & finding it at his entrance
to

to the Crowne harried, and spoiled by the *Paonians*, and forced to pay tribute by the *Illyrians*, by erecting a new arte, and discipline of warre, to which he exercised, and enured his *Macedonians*, he not only freed his Countrey from the Barbarous nations, but also ouercame the *Gracians*, accounted the only Masters of armies till that day, and caused himselfe to be declared Generall of *Greece* against the *Persians*: against whom after he had made his full preparation, he resolved to go in person. But being preuented by death, he left the succession of his kingdom, and execution of his designes to *Alexander* his sonne, whom he had before curiously instructed in the discipline of Armes inuented by himselfe. The same *Alexander* (being about 20 yeares of age) after he had vanquished *Darius* in 2 great battailes in 12 yeeres ran through, and subiected the spacious, rich, and flourishing kingdomes of *Asia*, euen as far, as the *East Indies*, and with terror of armes made the whole world to tremble at his name. His kingdomes were after his death diuided amongst many Successors, who by the same Arte military easily maintained the possession of their conquests. This Arte is it, that I at this time present vnto your Highnesse. It was comprised in writing by many, and yet none of their works attained our age, but only that of *Ælian*, who hath in a small volume so expressed the arte, that nothing is more short, nothing more linked together in coherence of precepts, and yet distinguished with such variety, that all motions requisite, or to be vsed in a Battaille are fully expressed therein. *Ælian* liued in the time of *Adrian* the Emperor. How much the booke was of ancient time esteemed may appeare by this alone, that *Leo* a succeeding Emperor setting downe Martiall instructions for the gouernment of his Empire, transcribeth whole passages out of *Ælian*, & whensoever he citeth, or nameth the *Tacticks*, he giueth still the first place vnto *Ælian*.

Howbeit the practise of *Aelians* precepts hath long lien wrapped vp in darknes, & buried (as it were) in the ruines of time, vntill it was reuiued, & restored to light not long since in the vnited Prouinces of the low-Countries, which Countries at this day are the Schoole of war, whither the most Marti- all spirits of *Europe* resort to lay downe the Apprentiship of their seruice in Armes, and it was reuiued by the direction of that Heroicall Prince *Maurice* of *Nassau*, Prince of *Orange*, Gouvernour, and Generall of the said Countries, a Prince borne and bred vp in Armes, and (beside the completenes of his other eminent vertues) for skill, experience, iudgement, and military literature comparable to the greatest Generals, that euer were. I haue of late aduentured to take from *Aelian* his *Greekish* cloake, and to put him in *English* appa- rell, that in that habit he might attend your Highnesse, and be ready with his seruice, in case he were thought worthy of employment. He had before for his Patron *Adrian*, an Em- peror, and Ruler of the *Roman* world. Now he humbly craueth your HIGHNESSE fauour for his protection, who as in Princely descent, and succession of Royall blood you are farre superior, so in vertues worthy of your birth, and yeares, and in all hopefull expectations are you nothing in- ferior to *Adrian*. It may please your Highnesse to regard him with a gracious eye, and to esteeme the Presentor of him your faithfull bedesman, that will not cease to pray to the mighty God of hosts, to giue you conquest ouer all your enemies. From my Garrison at *Woudrichem* in *Hol- land* the 20 of September 1616.

Your Highnesse most humbly

devoted,

IO: BINGHAM.



THE TACTICKS OF *ÆLIAN* or art of embattailing an army after the Grecian manner.



HE *Grecian* arte of embattailing an army (most mightie *Augustus Cesar* *Adrian*) the antiquitie whereof reacheth back to the age wherein *Homer* lyved, hath beene committed to wry- ting by many, whose skill in the *Ma- thematicks* was not reputed equal with myne: whereby I was induced to thinke it possible for me soe to deliver the groundes therof, that posteritie should rather regard and esteeme my labors, then theirs, that be- fore me haue handled the same argument. But weighing againe myn own ignorance (for I must confesse a truth) in that skill & practise of armes, which is now in esteeme among the *Romaines*, I was by feare with-held from re- uiving a science half dead, as it were, and since the inven- tion of that other by your auncestors, altogether out of request and vnregarded. Notwithstanding comming afterward to *Formie* to doe my dutie to the ¹ Emperour *Nerva* your maiesties father, It was my fortune to spend sometime with ² *Frontine* a man of Consular dig- nitie, and of great reputacion by reason of his experience

A

in

in militarie affaires: and after conference with him perceiving he imparted no lesse studie to the *Grecian*, then to the *Romaine* discipline of armes I began not to despise that of the *Grecians*, conceiving that *Frontine* would not so much affect it, if hee thought it inferiour to the *Romaine*. Having therefore in times past framed a project of this worke, but yet not daring then to publish it in regard of ³ your majesties incomparable valour, and experience, which make you famous aboue all Generalls without exception, that euer were: I haue of late taken it againe in hand, & finished it, being (if I deceaue not my self) a worke both worthy to be accompted of, & of sufficiency, especially with such as are studious of the arte, to obscure the credit of the auncient *Tacticks*. For in respect of the perspicuitie I dare bouldlie affirme, the reader shall more advantage himselfe by this little volume, then by al their writings: such is the order and methode, I haue followed. Howbeit I durst scarcely offer it to your majestie who haue beene Generall of so greate warres, least happily it proue too too slender a present, & altogether vnworthy of your sacred viewe. And yet if your majestie shall bee pleased to thinke of it, as of a *Greekish Theorie*, or a various discourse it may bee, it will giue you some little delight, the rather because you may therein behold ⁴ *Alexander the Macedons* manner of marshalling his fields. And for that I am not ignorant of your majesties more weightie affaires, I haue reparted it into chapters, to the end you may without reading the booke in few wordes take the somme of that, which is to bee delivered, and without losse of time find the places you are desirous to peruse.

Notes.

Notes.

THE Tacticks] As *Taxis* in a general sence signifieth order, so *Tacticos* is as much, as pertaining to order: but specially taken, it signifieth pertaining to order of a battaile, or to the embattailing of an army. Hereof the arte of embattailing an army is called *Tactice*, and hee, that is skillful, and experienced in that arte, *Tacticos* (^a *Vegetius* nameth him *magistrum armorum*) and the books written of the arte, *Tactica*. And that this is the true signification of the word may appeare by *Xenophons Cyropadia*, where the arte *Tactick* is distinguished from the arte *Imperatory*, or arte of a Generall. Hee induceth *Cyrus*, in a discourse with his father speaking thus: ^b In the end you asked mee what my master taught mee, when hee professed to teach the art *Imperatory*. And when I answered, the *Tacticks*, you smiled, and asked particularly, what the *Tacticks* availed without provision of things necessary to liue by: what without preservation of health? what without knowledge of arts invented for the vse of warre? what without obedience? so that you plainly shewed, that the *Tacticks* are but a small portion of the arte *Imperatory*, or of commanding an army. Thus *Xenophon*: making a difference between the arte *Imperatory*, & the arte *Tactick*. And in other place hee speaketh yet more particularly: ^c *Cyrus*, sayd hee, esteemed it not the duty of a *Tactick* to enlarge onely, or to stretch out in length the front of his *Phalange*, or to drawe it out in depth, or to reduce it from a winge to a *Phalange*, or to countermarche readily, the enemy shewing himselfe on the right, or left hand, or in the rear, but to diuide it, when need is, & to place euery part for most advantage, & to leade it on speedily, when occasion is of prevention. Yet sometimes in a general signification books entreating of the whole arte of warr are called *Tacticks*: as the *Constitutions military* of the Emperour *Leo* are entituled *Tactica Leonis*, perhaps of the best parte, because the arte of embattailing an army hath alwayes been esteemed the chiefest point of skill in a Generall. Howbeit *Ælian* in his title of this booke taketh *Tactice* in the streighter signification: as appeareth by the definitions, he alleageth out of *Ænaas* and *Polibius*: of whome the first defineth the art *Tactick* to bee a science of warlike motion; with whome also ^d *Leo* agreeth: the other, to bee a skill, whereby, a man taking a multitude serviceable, ordereth it into files, and bodies, and instructeth it sufficiently in all things appertaining to warre. Which two definitions comprehend in few words the argument of the whole booke. For first *Ælian* intreateth of levieng, & of arming men, then of filing, next of joyning files, and making bodies, after of ordering the whole *Phalange*, or battaile, further of motions requisite to affront the enemy, whersoever he giveth on, whether in front, flank, or reare; lastly of marching, and of the sondry formes of battailes carieng with them advantage of charging or repulsing the enemy in your marche. Hee that will further understand the boundes of this arte, let him read in the 21. chapter of *Leo* the 38. section.

I The Emperour *Nerva* your maiesties Father] The Emperour *Nerva* here mentioned was not *Nerva Cocceius*, whome succeeded *Domitian*, but *Vlpianus Traianus*, who was also called *Nerva*, because he was adopted by *Nerva Cocceius*, & succeeded in the Empire. And where *Ælian* termeth him *Adrians* father, indeed *Adrian* pretended, he was *Traians* sonne by adoption. But ^e *Dio* plainly denieth it, & *Spartian* saith, some reported hee was adopted by the faction of *Plotina* (*Traians* wife) by substituting one to speake with a faint voice, as if it had beene *Traian* vpon his death-bed, whereas *Traian* was before departed this world. This is agreed, that he was

A 2 german

^a *Veget. prolog. lib. 3.*^b *Xenoph. cyrop. lib. 3. c. 37.*^c *Xenoph. cyrop. lib. 3. c. 37.*^d *Plot. in Philop. comment. c. infra. cap. 3.*^e *Leo. cap. 1.*^f *Dio & Spartian in vita. Adrian.*

german once removed to Traian, & that his father dieng, he (being but ten yeares olde) was ward to Traian (then a private man) and to one Calius Tatianus.

2 To spend some time with Frontine] Frontine heer mentioned was the same that wrote the book of Strategemes, now extant, & commonly ioyned in one volume with Vegetius. Hee was a man curious in the searche of the Gracian discipline, as may be scene by his owne preface to his bookes of Strategemes: & by the testimony of Ælian. & in the first chapter of this treatise, is reckoned amongst the Tactick writers. ^a Vegetius reporteth he was much esteemed by the Emperour Traian. Hee lived also in greate reputation in the time of Vespasian: at least if it bee hee, that Tacitus speaketh of in the life of Iulius Agricola. And yet it might bee he very well, there being noe more then twenty yeares, & certeine monthes betwixt the reignes of Traian, & the reigne of Vespasian in whose time Frontine is reported by ^b Tacitus to haue overthrowne the Silures in Britaine. Ælian in the next chapter calleth him Fronto. Of sone Fronto, that was Consul in the third year of the reigne of Traian, I read in ^c Dio: whose saying is reported to haue beene. That it was ill to haue an Emperour, vnder whome noe man might haue liberty to doe any thing, but much worfe to haue an Emperour, vnder whome every man might doe what hee list. But this Fronto was not Ælians Fronto. Hee was called Marcus Cornelius Fronto; this (that Ælian speaketh of) Iulius Frontine. And yet it is noe wonder that Frontine in latine should be called Fronto in Greeke, it being vsual for the Gracians to varie, and deflect a litle from the property of the latine names.

3 Your majesties incomparable valor & experience] That this praise given Adrian is not altogether without cause, may appeare by that, which ^d Ælius Spartianus writeth in the life of Adria. His wordes haue this meaning: After this, taking his journey into France, he was bowntifull to all, as he sawe cause. From thence hee passed into Germany, & being rather desirous of peace, then warre, yet hee so exercised his souldiers, as though warre were at hand, teaching them to indure paines & hardnesse, him selfe giving an example of military life: gladly also vsing Camp-fare, as namely lard, & cheefe, for meate, & water mingled with vineger for drink, in imitation of Scipio Æmilianus, & of Metellus, & of Traian the author of his preferment & rising, bestowing rewardes vpon many, honors vpon some, to encourage them to beare such things, as seemed hard in his commaundes. And surely it was hee next Octavius, that vpheld military discipline (declining nowe through the remissenesse of former Emperours) by ordering both the places of Commaunde, & the payes; never suffering any man to absent himselfe from the Campe, but vpon iust cause: meafuring the worthe of Tribunes not by fauour of the souldiers, but by their owne desert; exhorting, & exciting all the rest by example of his owne vertue, whilest hee often marched twenty miles on foote, being fully armed, broke downe banquetting howses, and galleries, & vaults for coolenesse, & arbors, wheresoever hee fownd them in the Campe; & was leene in a plaine garment vsually, wore a baudricke nor garnished with gold, buttons without gemmes, scarcely allowing an ivory handle to his sword; visited his sick souldiers in their lodgings, him selfe chose out the grownd to encampe in: made noe Captaine, but a man of a strong body, noe Tribune, but with a growne beard, or of age, that by prudence, and yeares was able to sway the weight of the place: nor suffered him to take ought from the souldier; removed all delicacies; and lastly reformed their armes, and baggage. Hee had besides consideration of the age of souldiers, allowing none younger, then was befitting vertue; nor elder, then stood with the lawes of humanity, to bee conuersant in the Campe, contrary

^a Veget lib. 2. cap. 2.

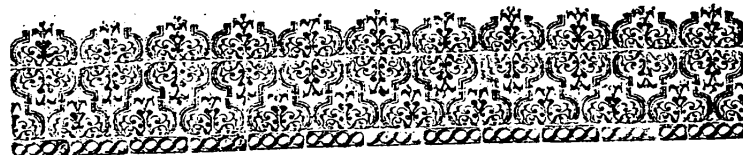
^b Tacit. in vita Agricole.

^c Dio in vita Nervæ.

^d Spartian, in vita Adriani.

rary to old custome, and vsage: and gaue himselfe to haue particular knowledge of them all, and what their number was. Furthermore he was carefull to vnderstand the controuerlies betwixt souldier and souldier, and searched with great attentiuenesse into the revenues of the Provinces, to the end to supply, what was wanting; endeavouring notwithstanding aboue all neither to buy, nor feede ought, that was not for vse. Wherefore when he had fashioned his souldiers to his owne example, he passed over into Britaine, where he corrected many things, and was the first that drew a wall a-long by the space of eighty mile; wherewith he diuided the Romans from the barbarous people. Hitherto Spartian. I haue recited the historie at large, because I might represent the picture of an excellent General.

4 Alexander the Macedons manner.] That this booke comprehendeth the Macedonian discipline of armes, I will shew hereafter, as particulars offer themselves. In the meane time let this suffice for an argument, that Ælian doubteth not to affirme it to Adrian, a Prince excellently learned in the Greeke language; and as by reason of skill he was able to discern, so by his authoritie he would haue censured so grosse an escape, if it had beene otherwise, than Ælian reporteth.



THE CONTENTS OF THE

CHAPTERS of the Booke.

T HE Authors that haue written Taclicks; of this booke, and of the profit of the Arte.	CHAP. 1.
The preparation of warlike forces, and how they are to bee armed.	CHAP. 2.
The framing of a Phalange, & definition of the art Taclick.	CHAP. 3.
What a file, or decury is, and of how many men it consisteth.	CHAP. 4.
The order and parts of a file, or decury.	CHAP. 5.
Of ioyning files.	CHAP. 6.
Of a Phalange: the length and depth thereof; of Ranking, and filing. The diuision of the Phalange into wings. The place of the armed foote, of the light-armed, and of the Horse.	CHAP. 7.
The number of the armed foote, of the light-armed, and of the Horse.	CHAP. 8.
The names of the seuerall parts, and the Commanders of the seuerall parts of the Phalange, and of the numbers vnder their Commands.	CHAP. 9.
The precedence, and dignitie of places, in the offices of the Phalange.	CHAP. 10.
The distances to be obserued betwixt souldier, and souldier, in opening, or shutting the Phalange.	CHAP. 11.
The arming of the Phalange.	CHAP. 12.
The worth the File-leaders, and next followers, should be of.	CHAP. 13.
Of the Macedonian Phalange, and the length of the souldiers Pikes.	CHAP. 14.
The place of the light-armed, and the number of euery file of them.	CHAP. 15.
The names of the bodies of the light-armed.	CHAP. 16.
The use of the light-armed.	CHAP. 17.
The fashion of horse-battailes; the Rhombe, the wedge, and the Square.	CHAP. 18.
Why Rhombs were first brought into use, & of the diuers formes of them.	CHAP. 19.
The place of horsemen in the field, and the number of the vsuall horse-battaile, and the degrees, and names, of the officers of the Horse in generall.	CHAP. 20.
The diligence to be used in choice, and exercise, of the best formes of battailes.	CHAP. 21.
Of Chariots; the names, and degrees of the Commanders.	CHAP. 22.
Of Elephants; the names, and degrees of their Rulers.	CHAP. 23.
The names of the military motions expressed in this booke.	CHAP. 24.
Of turning, & double turning, of the souldiers faces, as they stand embattailed.	CHAP. 25.
Of wheeling, double, and treble wheeling, of a battaile, and of returning to the first posture.	CHAP. 26.
Of filing, ranking, and restoring to the first posture.	CHAP. 27.
Of Countermarch, and the diuers kinds thereof, with the manner how it is to be done.	CHAP. 28.
Of doubling, and the kinds thereof.	CHAP. 29.

of

Of the broad-fronted Phalange, the deepe Phalange, or Herse, and the vneuen fronted Phalange.	CHAP. 30.
Of Parembolē, Protaxis, Epitaxis, Prostaxis, Entaxis & Hypotaxis.	CHAP. 31.
The manner how the motions, of wheeling, double, and treble wheeling of a battaile are to be made.	CHAP. 32.
Of closing of the battaile to the right, or left hand, and to the midst.	CHAP. 33.
The use and advantage of these exercises of armes.	CHAP. 34.
Of signes of directions, that are to be giuen to the Army, & their seuerall kinds.	CH. 35.
Of Marching; of diuers kinds of battailes fit for a March; of the right Induction, of the Coelembolos, & of the Triphalange to be opposed against the Coelembolos.	CH. 36.
Of Paragoge or Deduction.	CHAP. 37.
Of the Phalange called Amphistomus.	CHAP. 38.
Of the Phalange called Antistomus.	CHAP. 39.
Of the Diphylange called Antistomus.	CHAP. 40.
Of the Phalange called Peristomus.	CHAP. 41.
Of the Phalange called Himoiostomus, and of the Plinthium.	CHAP. 42.
Of the Phalange called Heterostomus, and of the Plinthium.	CHAP. 43.
Againe of the Horse-battaile called the Rhombe, and the foote holse-moone to encounter it.	CHAP. 44.
Of the Horse-battaile Heteromekes, and the broad-fronted foote battaile to be opposed against it.	CHAP. 45.
Of an other kinde of Rhombe for Horsemen, and of the Epicampios Emprosthia to encounter it.	CHAP. 46.
Of the foote-battaile called Cyrte, which is to be set against the Epicampios.	CHAP. 47.
Of the Horse-battaile, which is square in ground, and the wedge of foote to be opposed against it.	CHAP. 48.
Of the foote-battaile called Plasmus, and the Sawe-fronted foote battaile to encounter it.	CHAP. 49.
Of over-fronting the enemies battaile, & over-winging it, and of attenuation.	CH. 50.
Of the leading of the Carriage of the Army.	CHAP. 51.
Of the words of Command, and of certaine Rules to be obserued therein.	CHAP. 52.
Of silence to be used by Souldiers.	CHAP. 53.
The manner of pronouncing the words of Command.	CHAP. 54.

The



The Authors that have written Tacticks; of this booke, and
of the profit of the Arte.

CHAP. I.

Homer the Poet seemeth to be the first, (at least we read of) that had the skill of imbattailing an Army, and that admired men indued with that knowledge; as appeareth by *Mnestheus* of whom he writeth,

*His like no living wight was found, nor any age did yeild,
To marshall Troopes of horse, or bands of foote in bloudy field.*

Concerning *Homers* discipline militarie, the workes of *Stratocles*, and of *Frontine* a man of Consular dignitie in our timeare to be read. *Aeneas* perfected the Theorie thereof at large publishing many volumes of warfare, which were abridged by *Cyneas the Thessalian*. Likewise *Pyrrhus the Epirote* wrote *Tacticks*, and his sonne *Alexander*, and *Clearchus*, and *Pausanias*, and *Euangelus*, and *Polybius the Megapolitan* (a man of great learning, *Scipios* companion) and *Eupolemus*, and *Iphicrates*; *Possidonius* also the Stoick set forth the art of warre, and many other, some in Introductions, as *Brion*, some in large *Tactick* volumes. All which, I have seene, and read, and yet thinke it not much to purpose to mention particularly; being not ignorant, that it hath bene the manner of those writers for the most part, to apply their stile not to the ignorant, but to such as are already acquainted with the matters they intreat of. As for the impediments, which presented themselves to me, when I first gaue my minde to the studie of this Art, as namely neither to happen vpon sufficient Instructors, nor yet to find light, or perspicuitie enough in the precepts delivered; I will endeavour, as much as I can, to remove out of other mens way: And as often as words shall faile to expresse my meaning, I will for plainenesse sake, vse the direction of figures, and pourtraicts, adioyning thereby the view of the eye, as an aide, and assistance, to the vnderstanding, and withall reiteine the termes of auncient Authors, to the end, that whosoever shall follow this booke for an introduction, being therein exercised both to the same words; and also to the vsage of things expressed in them, may grow as it were acquainted, and imagine himselfe no stranger, when he cometh to read their workes. By which waies by me prescribed, I make no doubt, they will easily be vnderstood. Now that this Art of all other is of most vse, may appeare by *Plato* in his booke of Lawes, where he saith: *That the Cretan Lawgiver so contriued his Lawes, as if men were alway prepared to fight. For all Cities haue by nature vnproclaimed warre one against another. Which being so: what discipline is more to be esteemed, or more auaylable to mans life, then this of warre?*

Notes.

It seemeth by this Chapter, that the Authors, that haue of auncient time written Tacticks, haue bene many: and those not of such kinde of men, as haue giuen themselves to study, and contemplation alone, but of such, as besides their knowledge in good letters, haue bene actors in warre themselves; & (which is more) principall actors, some of them Generalls, other the next degree to Generalls. Howbeit there is none here mentioned by *Ælian*; whose workes are extant. Whereby may be esteemed the inestimable losse, these later ages haue suffered, in being deprived of such excellent monuments. I hope, I may so terme them without offence, though I haue not scene them. For what but excellent, can proceed from men of such excellencie in their profession? such as the most part of those were. Yet for some of them I can say nothing, as finding little remembrance of them in auncient writers. Of this kind are Eupolemus, Stratocles, Hermias, Clearchus, Pausanias: albeit such names may often be found: The rest are specially mentioned, and much commended. Of whom I will set downe, what I finde.

1 Frontine a man of Consular dignity. I haue before noted somewhat of Frontine. We haue of his, as it is thought, other workes, besides his stratagemes: but this booke of Tacticks, whereof *Ælian* speaketh, we haue not. I will onely adde the relation of *Vegetius* touching Frontine, who writeth thus: Cato the elder, albeit he had bene both invincible in armes, and often Generall of great Armies, beleueed yet he should more profit his Countrey, if he laid downe in writing the discipline of warre. For valiant acts are but of one mans age, but things written for the profit of the State endure for euer. Many other haue done the like, but especially Frontine; whose industry herein was greatly approved by the Emperour Traian.

^a Veget. lib. 2.
cap. 3.

^b Polyb. lib. 10
pag 615.

2 *Æneas* perfected the Theory. *Æneas* is mentioned by *Polybius* in his tenth booke, where he discourseth of signes to be made by beacons of fire, in case an enemy approacheth to any part of our Countrey. His booke was intituled, Commentaries of the office of a Generall, as *Polybius* saith; and *Ælian* here calleth them, Bookes of the office of a Generall, the title being all one in effect. Of these booke none haue reached to our age, but one alone, which compriseth precepts of defending a Towne besieged, and some 5 or 6 yeeres agoe came first to light, and print: that worthy man *Isaac Casaubon*, the learned ornament of his Countrey, (and of England so long, as he liued there) being the setter forth. And it is adioyned to his edition of *Polybius*. These booke Tactick of *Æneas* were abridged (as *Ælian* saith) by

^c Plutarch. in
Pyrrho.

3 *Cyneas* the Theſſalian. *Plutarch* in the life of *Pyrrhus* telleth vs what *Cyneas* was. There was, saith he, in the Court of *Pyrrhus* a Theſſalian, a man of great vnderstanding: and who hauing heard the Orator *Demosthenes*, seemed alone of all, that then were esteemed eloquent, to renew in the memory of the hearers an image and shadow of the vehemencie and vigor of his vtterance. *Pyrrhus* held him in his Court, and made vse of him, in sending him in embassages to people and Cities. In which embassages hee confirmed the saying of *Euripides*.

What euer force can doe, with trenchant swords;
The same, or more, is wrought by pleasing words.

Therefore was *Pyrrhus* wont to say, that *Cyneas* had gained more Cities with his eloquence, then himselfe with armes. By occasion whereof hee did him

him great honor, & employed him in his principal affaires. *Tully* speaketh of his workes: your letters, (saith he to *Papyrius Pætus*) haue made me a great General: I was altogether ignorant of your so great skill in military matters. I see you haue read the books of *Pyrrhus* & *Cynæas*, I therefore purpose to follow your counsel: this yet more, to haue some fewe shippes in a readinesse vpon the sea-coast. They lay, there is noe better armour against *Parthian* horsemen. But why sport wee? you knowe not, with what a General you haue to doe. I haue in this my gouernement fully in practise expressed *Xenophons* institution of *Cyrus*: which before I had worne a peece with reading. *Pyrrhus* & *Cynæas*, hee nameth, as two principall Authors of warlike discipline: And where he addeth *Xenophon*, whose, though he be not named by *Ælian* amongst the Tactick writers, deserveth yet not to be pretermitted, hauing been both a great Comaunder, & besides writt largely of military matters, whose workes also are now extant; let vs see, what he saith of him in another place. *Cyrus*, saith he, is written by *Xenophon*, not according to the truthe of an history, but for a patterne of iust gouernement. Whose wondrous grauity is by that Philosopher matched with singuler Curtesie, which booke our *Africanus*, (and that not without cause) was never wont to let goe out of his hands. And of *Africanus* he reporteth the like in his *Tusculan* quaestions.

4 *Pyrrhus* the Epriote wrote Tacticks. *Pyrrhus* the K. of *Epirus* was of auncient time esteemed one of the best Generalls, that euer was. What *Anniballs* iudgement was of him, *Livy* reporteth, & *Plutarch* in the life of *Pyrrhus*. And *Antigonus* being de-maunded, whom hee thought the greatest generall, then liuing, answered *Pyrrhus*. And where other Kings imitated *Alexander* the great in purple apparails in number of gardes about their persons, in carieng the necke a litle awry, & in speaking lowde, hee alone represented him in exploites of armes, & in deedes of prowes, saith *Plutarch*. *Plutarch* saith likewise: Touching his skill in the arte military howe to order a battaile, and howe to bring his men to fighte with most advantage, a man may draw prooffe sufficient out of the booke, he wrote, of which booke *Tully* spake in the last paragraph.

5 And his sonne *Alexander*. *Pyrrhus* had by his first wife *Antigone* a sonne called *Ptolomey*, by *Lanassa*, another called *Alexander*: & by *Bircanna*, the third named *Helenus*. All which albeit by race & inclination of nature they were Martial, yet brought he them vp, & from their birth framed & enured to armes. And the report is, when vpon a time one of them, yet a chylde, asked him, to which of them he would leaue his kingdom, to him, answered *Pyrrhus*, who shall haue the sharpest worde: *Iustin* also makes mention of these three sonnes. *Ptolomey* was slaine at *Sparta*, as *Iustin* would haue it. *Plutarch* saith he was slaine in the way betwixt *Sparta* & *Argos*. *Alexander* reigned after his fathers decease, in the Realme of *Epirus*. That hee wrote Tacticks, I haue not read, but in *Ælian* onely.

6 And *Evangelus*. *Plutarch* discoursing of the studies of *Philopamen* hath this in effect: He tooke noe delight to heare al kinde of discourfes, nor to reade al booke of Philosophy, but such onely, as might profit to the daylie encrease of vertue; And hee read not willingly other passages of *Homer*, then such, as hee thought had some efficacy to moue a mans hart to prowes. But amongst, and aboue al other readings, he specially affected the Tacticks of *Euangelus*: & like wise the histories of the exploits of *Alexander* the great. This is al I finde of the Tacticks of *Euangelus*. I gesse notwithstanding, he was a choise author, because *Philopamen* had him in such esteeme; of whom the same *Plutarch* writeth: That *Greece* bore him singuler affection, as the last vertuous man, which shee brought forth

^a Cicero, epist.
familiac. lib. 9
epistol. 17.

^b Epist. ad
Cez. lib. 1. cap. 1.

^c Tuscul. quest.
lib. 2. 146.

^d Livy. deced. 4.
lib. 5. 27. 2.
^e Plut. in Pyrrho.

^f Plutarch. in
Pyrrho.

^g Plutarch. in
Pyrrho.

^h Iust. lib. 18,
615. A.

ⁱ Lib. 25. 687. D.

^k Plut. in Pyrrho.

^l Iustin. lib. 26.
668. C. Athenus
Dipnosoph. lib. 34.
73. B.

^m Plutarch. in
Philopamen.

ⁿ Ibid.

foorth in her ould age, after so many great, and renowned Capitaines of ancient time; and alwayes augmented his power, and authority, as his glory encreased. In which respect a Roman, praising him, called him the last Græcian; meaning that after him Greece bred noe great, nor any personage in deed worthy of her.

7 And Polybius] It is the same Polybius, whose History, so much as is extant, that excellent learned man Isaac Casaubon translated into Latin, and set forth 1609. For his life and worth resort to the preface of the same Casaubon to Polybius his history. Hee had bene in Achaia, his owne countrey, Generall of the horse. Afterward being in displeasure with the Romans, hee lived long in prison at Rome: and was for his worth finally released by intercession of the greatest men of Rome: and became companion to Scipio Africanus the younger; with whom also he was at the siege and destruction of Carthage. His Tacticks, whereof Ælian speaketh, are perished with other of his workes. Yet are there many passages dispersed heer, and there in his history, which argue his extraordinary skill in matters of warre. And it may seeme, that Ælian hath taken much from him both for matter, and wordes.

8 Iphicrates] Who will reade of Iphicrates, let him goe to ^a *Emilius Probus*, that writeth his life. His actes are also declared by *Xenophon*, and *Diodorus Siculus*, and *Polyan*, and *Iustin* and divers others, as they were incident to their generall histories. Hee was esteemed one of the best Generalls of his time: and was called out by name by *Darius* King of Persia to be generall of the Græcians, his mercenaries, in the warre, hee had against the Egyptians: His fame and estimation was soe great with *Alexander* the great, that when his sonne (whose name was also Iphicrates) with other Græcians were taken prisoners by him, for that they came embassadours into Persia to *Darius*, he not onely spared him for the loue of the City of Athens, and for the remembrance of his fathers glory (the wordes of *Arrian*) but held him about him in honour so long, as hee liued, and after his decease sent his reliques to Athens, there to be interred by his friends, and kinsfolke.

9 Posidonius the Stoick] Posidonius in his time was a Philosopher of high renowne, and of the sect, that were called Stoicks. Tully citeth him often in his workes. In the second booke of *Tusculan questions* hee recounteth, that Pompey the great, on a time comming to Rhodes, was desirous to heare him. But vnderstanding hee was extreame sick of the goute, hee forbore not notwithstanding to visit him being a most noble philosopher: whome after hee had scene, and saluted, and vsed with honorable wordes, and told him, hee was sory, hee could not heare him discourse, you may, if you please, quoth Posidonius: and I will not suffer paine to be cause, that so great a man seeke mee in vaine. Then, as hee lay in his bed, began hee gravely, and copiously, to dispute, that nothing was good, but that, which was honest. And when firebrands, as it were, of torment towched him to the quick amidst his disputation, he broke forth often into these wordes: Sorow, all this is nothing: I thought thou trouble me neuer so much, I will not yet confesse, that thou art of thy selfe vill. So Tully. ^d Pliny likewise telleth, that Pompey, after the warre of Mithridates, going into the howse of Posidonius, a man famous in Philosophy, forbid his sericant to knock at the doore (as the manner was,) and the sericants bundles of rodde (saith he) were submitted to a doore by him, to whom East & West had submitted themselves. The same ^e Tully attributeth to this Posidonius the invention of a Sphere, whose particular conversions did worke the same in sonne & moone, and the other fixe planets, that is wrought by the motion of heauen euery day and night.

The

The preparation of warlike forces and diuision of them,
and how they are armed.

CHAP. II.

I will then beginne with such preparations as are absolutely necessary for service in warre, the forces whereof are of two sortes, the one Land forces, the other ship forces. Land forces are such, as fight on land: ship forces such, as are ordered for fight in shippes vpon Sea, or Rivers. But the order of Sea service I will referue for another place, and intreat now of things pertaining to Land service. The levies then for land service are either of those, that fight, and mannage Armes, or else of those that fight not, but remaine in the campe for necessary uses. They fight that stand ordered in battaile, and with armes [a]ssail or] repulse the enemy. The rest fight not, as Phisitions, merchants, servants, and other, which follow the campe to minister vnto it. Such as fight, are either footemen, or Riders: footemen properly, that serue on foote. Of Riders, some vse Horses some Elephants. They, that vse Horses, are caryed either one Horse-back, or else in Chariotts. And these are the differences in generall. But in speciall the foote, and Horse receaue many other diuisions; onely the Elephants, and Chariotts, neuer varie. Footemen then are reparted into three kindes, one being Armed, another Targettiers, the third light, or naked. ² The Armed beare the heaviest furniture of all footemen vsing according to the Macedonian manner large, round, Targetts, and ⁴ longe Pikes: ⁵ The Light contrarywise beare the lightest, having neither Curace, nor Grene, nor longe, or round Targetts of any weight, but ⁶ slieng weapons onelie as ⁷ Arrows, ⁸ Darts, ⁹ Stones either for hand, or sling. To this kind is referred the ¹⁰ armour of the Argilos, who hath his furniture like to the Macedonian, but some thing lighter. For hee carieth ¹¹ a little flight Torgett, ¹² and his Pike is much shorter, then the Macedonian Pike: which manner of arming seemeth a meane betwixt the light, or naked, and that which is properlie called heauie: as being lighter, then the heauie, and heavier, then the light: and that is the cause, that many place it amongst the light.

The forces of Horse (which wee distinguished before from Chariotts) as being ordered in Troopes, are either ¹³ Cataphracts, or not Cataphracts. They are Cataphracts, that cover their owne, and their horses bodies all over with armour. Of not Cataphracts, some are Launciers, some Acrobolists. ¹⁴ Launciers are such as joyne with the enemy, and fight hand to hand with the Launce on horseback. Of these, some beare longe Targetts, and are therevpon called Targettiers: Other some Launces alone without Targetts, who are properlie called ¹⁵ Launciers, and of some *Xestophori*. ¹⁶ Acrobolists on horseback are such as fight a far off with slieng weapons. Of these, some vse darts, some bowes. They vse darts, whome wee call ¹⁷ Tarentines. Of Tarentines, there are two sortes; for some throw little ¹⁸ darts a farre off, and are termed Darters on horseback, but properlie Tarentines: others vse light darts, & ¹⁹ after they haue spent one, or two, close presently with the enemy like the Launciers, which

wcc

^a *Emilius Probus* in vita Iphicratis. *Xenoph.* histor. græc. lib. 6. 587. B.C. *Diod. sicul. lib.* 15. 479. *Polyan.* lib. 2. in Iphicrate. *Iustin* lib. 6. 631. B.C.

^b *Adrian.* lib. 2. 42. C.

^c *Tuscul. quest.* on lib. 2. 146.

^d *Plin. natur.* hist. lib. 7. cap. 30. pag. 115.

^e *Cicero. de natura deor.* lib. 2. 27.

wee spake of, and fight hand to hand. These in common speech are named light horsemen. So that of Tarentines some are properly called Tarentines, whose manner is to darte a far of. Some light horsemen, who joyne, and fight hand to hand. ²⁰ The horsemen that vse bowes are termed Archers on Horseback, and of some Scythians.

These then are the differences of such as are in the Campe, the kinds of Souldiers being in nomber nyne: Of footmen, armed, Targetiers, Light armed, or naked: Of horsemen Lanciers, Darters, Archers, Cataphracts: And lastlie Chariots, and Elephants.

Notes.

IN this Chapter the kindes of Souldiers are distinguished according to their severall armes borne in fight. And therefore of foote some are called armed, because they beare heavy armes; other light armed or naked, because they wear no defensive armes, other some Targetiers, because their chief defence rested in a slight target, wherewith they covered their bodies. The horse also have their appellation, as their armes are. And some are Cataphracts, because themselves & horses were armed compleatly, other Lanciers, for that they used a lance: other some Acrobolists, by reason they fought with flying weapons a farre of. The first thoughts of a Prince, or State, that is resolved to put an army into the field, ought to be to provide armes. Armes are the security of their own souldiers, the terror of the enemy, the assured ordinary meanes of victory. The antiquity of armes is all one with the beginning of warre. For when of ancient time mighty men puffed up with pride, and led by ambition, sought by violence to enlarge their empire, and to bring under subjection their bordering neighboures, they were enforced to flye to the invention of armes, without which noe victory could be obeyed. Since, armes have been taken up for defence also, necessity, the mother of artes, inventing a meanes to withstand ambition. As Antalcidas wel obiected to Agesilaus being wounded by the Thebans; you are well rewarded for your labour, quoth hee, since you would needes teache the Thebans to fight, that had neither will, nor skill so to doe. For the Thebans being put to necessity of defence grewe warlike through many invasions of the Lacedemonians, saith ^a Plutarch. Whoe were the inventers of the severall pieces of armour, and of the divers kindes of weapons used in old tyme, may appeare by the relation of ^b Pliny in his natural history. This is certeyne, that the most warlike nations, and most victorious have alwayes sought to have advantage of their enemies by advantage of armes. The end of armes is either to defend, or assault. Hence are armes divided into two kindes: Defensive, and Offensive. Defensive are those, which are worn to resist the force, and charge of the enemy. Of this sort are the head-piece, gorget, curace, vambrace, ganslets, tases, greaves, and target. For whereas there are eleven partes in man, the woundes of any of which bring with the undoubted death (as some ^c authors write) the braines, the two temples, the throate, the breast, the belly, the two muscles above the two elbows, the other two about the knees, & the privy members pierced with a thrust: the headpiece serveth for the defence of the braine, and temples, the gorget for the throate, the curace for the breast, the vambrace for the muscles of the armes, the tases for the privities & belly, the greaves for the muscles about the knees, and the target for further assurance of the whole body, being moveable against all strokes, and proffers of the assailants. Offensive armes are such, as men endeavour to wound, or kill withall: as flying weapons of all kindes, arrowes, stones out of slings, or the hand, swordes,

swordes, pikes, partizans, javelines, and the like. ^a But as defence and security of a mans self is more agreable to nature, then to hurt an enemy, so are the defensive armes preferred before the offensive, in that they bring safety to him, that beareth them, where as the other are employed in annoieng the enemy onely. The Poets sett forth their bravest and valiantest men alwayes best armed for defence. So Achilles in Homer, and Aeneas in Virgil, are armed to point with armes wrought by Vulcan, to the end to remaine untoucht amidst the stormes of their enemies weapons. The Gracian Lawgivers punished that souldier, that in fight cast away his target: not him, that lost his sword or pike. ^b Plutarch writeth, that at such time as Epaminondas assaulted Sparta (the most warlike City of Greece) there was in the City a Spartan named Isadas, who was the sonne of Phæbidas, hee that surprised the Castle of Thebes called Cadmea, and thereby stirred up the warre betwixt the Thebans, and Lacedemonians, & ruined the principality of the Lacedemonians in Greece. This man being in the flower of his age, and personable, and large of lymmes, ranne forth of his howse all naked, his body annointed with oyle, without appareile or armes, except a sword in one hand, & a javelin in the other; and breaking through the throng of those, that fought on his side, came to handes with the enemy, and overthrowing some, and killing other some, continued the fight, till the enemy was repulsed, and at last returned into the City without woundes. The chief magistrate understanding hereof rewarded him with a Crowne for his valor, but yet fined him at a hundred drachmes, for that he durst venter to fight without armes defensive, iudging it a matter almost impossible, that a naked man should escape with life fighting against the armed handes of so many valiant enemies, as the Thebans were.

In armes was required, that they should bee strong, that they should bee fitt, that they should bee comely; strong to protect, or annoy, fitt to sette close to the body and bee manageable, comely to grace him, that beareth them. That defensive armes ought to be strong, may bee shewed by the end of armes; which is to saue harmlesse against arrowes, darters, and other offensive armes of the enemy. If they faile of this end, they are of noe use; it being better to be unarmed, then cary armes, that will not defend. Without armes you have the body free, and at liberty: caryng armes, though never so light, they must bee a cumber to you, and some what hinder the motion of your body. Armes therefore ought to bee sufficient to resist the weapons of the enemy. The inconvenience of defectiue and weake armes is well noted by Vegetius. ^c From the building of the City of Rome, saith hee, till the time of the Emperour Gratian, the foote armed their bodies with Cataphracts, and head-pieces. But when field exercise through negligence, and slouth was given over, armour began to growe heavy, because it was fieldome put on. They made suite therefore to the Emperour first, that they might leaue of their Cataphracts, then their headpieces. So our souldiers encountering with the Gothes, were oftentimes wholly defeated and slaine by the multitude of their arrowes. And a litle after: so cometh it to passe, saith he, that they, whoe without armes, are exposed in the battaile to woundes, thinke not so much of fight, as of running away. Yet must wee not imagine, that those souldiers fought in their ordinary appareile onely: I encline rather to the opinion of ^d Stewechius, whoe holdeth, that they tooke themselves to their military coates, called in ^e Notitia vtrâque, Thoracomachi: and to their Targets; This Thoracomachus was a garment invented long before Gracians time, and worn under the armours of the souldiers, and was a kind of felt, but being noe proffe against arrowes, and their targets not sufficient to cover their heads, and whole bodies from arrowes, they were obnoxious to the shotte of the Gothes, and received those overthrowes, Vegetius speaketh of.

B

The

^a Plutarch, in Agesilaus.
^b Plin. natural histor. lib. 7. c. 56.

^c Parric. Paral. a. pag. 57.

^a Plut. in Pelopida.

^b Plutarch. in Agesilaus.

^c Drachma hath in it 6 oboles that is about 6 pence sterling Jul Pollux lib. 9. cap. 6. 434.

^c Vegetius lib. 1. cap. 10.
A cataphract is the iust and full armour of the horse. Heereafter wee shall see what that armour is.

^d Stewechius in Vegetius pag. 52.
^e Notitia vtrâque Orientis, & Occident. in fine.

The matter whereof strong armes were made, I find to bee divers. Some were forged of Steele: as the armour of Goliath, and the head-piece of K. Saul. For it is not there sette downe, what his curace was of. Notwithstanding it is likely, it was of the same matter, of which his headpiece was made. Where I say these armours were of Steele, I follow therein the judgement of Tremelius and Iunius, whoe so translate it; & with them also agreeeth Vatablus. For the old translation hath, that they were of brasie: I have not else where read of Steele armour. And it may bee, that the old translation had an eye upon the usage of ancient time, wherein the matter of armes was principally of Brasie. Homer reporteth, that the armour of Diomedes was of brasie: & Pausanias, that all the Heroes (that is the ancient worthies about the time of the siege of Troy) had their armour of Brasie. Alcous the Poet in describing his armory saith, the rest of his armes were of brasie, as his headpieces, his greaves, his Targets, only his Curaces were of linen. Pausanias reporteth also that the sword of Memnon was of brasie, & the head of the speare of Achilles, & Pisan- ders axe, & the head of Meriones his shafte. Servius Tullius in setting the City of Rome, appointed the chiefeft & richest Citizens to arme themselves with headpieces, greaves, Cu- race, & buckler also of brasie. The targets of the Lacedemonians were of brasie also by the in- stitution of Lycurgus. So that brasie was much used in armes in the oldest times. And where Alcous speaketh of his linen Curace, I find that Curaces of linen were in request also eve in those times. Homer affirmeth that Ajax Oileus had a linen Curace. But afterward I- phicrates the Athenian held them so good, that he gave them to his souldiers to weare, in steede of their usuall armes made of iron, & brasie. And Xenophon armeth Abradates the K. of Suse with a linen armour, adding that it was the manner of that Countrey. And Pla- tarch saith, that Alex. the great, after he had gotten the victory against Darius in Cilicia, found amongst the spoile a line armour, which he afterward used in the battailes, he fought. Patricius is so confident in the strength of a linen armour of his owne device, that he doubteth not to preferre it before well tempered iron. What his invention is, he keepeth to him- self for feare the Turk should have intelligence of it, & so Christianity bee driven to an ex- gent. Almen knowe, that the temper of an iron armour may be such, as wil resist the violence of a musket shotte, and that at a neere distance. Neither is this temper the invention of our dayes. The like hath been of ancient time. Plutarch writeth, that Demetrius besieging Rhodes, was presented with two iron armours brought out of Cyprus, either of the weight of 40. poundes. The maker of them, whose name was Zoilus, desirous to shewe their strength, & firmenesse, caused one to be set up at the dislance of 26. paces, and bee shotte at with an arrowe discharged out of a Catapult. The armour hitte remayned unpierced, nothing appea- ring vpon it, but the raising, as it were, of a pekenife. And that a Catapult is of more violence, the a musket, the effects thereof declared in history make plaine. Whether a linen coate be of that resistance, or not, hath not been yet tried. Nay the contrary hath been tried. For Alexander at a siege of a City of the Mallians (as I take it) was sore wounded with an Indian arrowe through an armour of linen. Whose armour I would iudge to have bene not of the stende- rest, and weakest, but of the surest kinde. Yet is it not to bee passed over that Tullius Lip- sius alleageth out of Nicetas Choniates concerning a linen armour of Conradus of Mon- ferrate: a Conradus, saith hee, fought then with out a target, and in steede of a Curace hee had on a woven weed made of flaxe, soaked in fowre wine, well salted, and often-folded. It was so sure against outward force of strokes, being filled with wine, and salted, that it could not bee pier- ced with iron or Steele. This invention our age hath not bene acquainted with; whether it bee the same, that Patricius aimeth at, let experience iudge. That anti- quity practised it in wooll, Pliny witnesseth, who writing of wooll and woollen garments saith: Of wooll wrought and pressed together by it selfe alone

alone (I think as our hatters worke felt) a garment is made; & if you worke it with vineger, it cannot bee strooke through with a sword. This wooll so wrought, he calleth coactam; which in Cesar, as I take it, is called Subcoactum. Cesar's wordes sound thus: Pompey, although hee had noe purpose to hinder Cesar's workes with his whole army, nor yet to hazard battaile, sent notwith- standing archers and slingers, of whome hee had great store, to convenient places; and by them many of our souldiers were wounded; & a generall feare of arrowes fell vpon them; and well nigh our whole campe made themselues coates and cases of either felts (subcoactis) or quilts, or leather, thereby to avoide the daunger of sling weapons. But wee will leave Patricius to his fancy, and adde an example out of Xenophon of armes used by the Chalybes, a nation inhabi- ting the Chaldean Mountaines. The Chalybes, saith hee, were the most vali- ant nation, that the Graecians passed through, & such as durst come to handes with them. They used linen Curaces reaching downe to their bellies, and in steede of winges, they had roapes thick woond, and fastened together. The strength of roapes thick woond together must, noe question; bee great. Cesar confirmeth it. Amongest other defences, which his souldiers devised for assurance of a Turret against the Engines of the Marsilians, hee saith: They made foure sto- ries of Cables fitting the length of the walles of the Turret, and foure foote broad, and fastened them hanging downward to the beames sticking out of the Turret on those three parts, which lay toward the enemy; which kinde of covering alone, they had in other places made triall, could bee forced or strooken through by noe misfue weapon, or Engine whatsoever. This, I have heard, was the device of the Spaniards in 88. to defend their ships against the fury of our artillery. Whereof I may inferre, that if Cables combined together bee of such assurance against Engines, roapes thick layde and fastened together must bee a strong defence against a sword. To end with the matter, whereof armes were made, I finde likewise, that the Macrones used, in steede of Curaces, coates made of haire. And thus much of the matter of Armes.

Besides, armes should be fitt for the body, and for the strength of him, that beares them. When David was to fight against Goliath, K. Saul, seeing him without armour, caused his owne head-piece & curace to be put vpon him. David assayed to marche, but finding these armes to heavy, was faine to leave them, and to goe against Goliath unarmed. Saul was the tallest man of his nation, David but meane of stature, & to put armour propor- tioned to a large body vpon him, that is a great way lesse of members, is as much, as to de- liver him bound to his enemy. Xenophon amongst other causes, why the Lacedemonian horse were beaten by the Thebans at the Leuctrian battaile, alleageth this for a maine cause: That the richest men kept & furnished out horses, & as often as musters were takē, the man, that was to serue, shewed himself, & answered to his name, & receiving horse & armes, such, as were given him, was so led against the en-emy. They were beaten, saith Xenophon, receiving horse & armes at al adventure, not know- ing, whether they were fitt for service, or not. Whether armes be to bigge or to litle, they hurt a like. To litle, they pinche the bearer, & make him not able to endure labour; be- cause he is in paine: To great, by their flap and loose hanging about the body, they hinder the motion of those partes, that are to be employed in fight. Being fitt they differ litle from ordi- nary appaile, except it be in weight: which inconvenience is easily remedied by use, and practise. Tully writeth of the Roman souldier, that his continuall use of armes was such, that hee noe more reckoned his target, sword, head-piece, & other armes to bee burdenous vnto him, the his shoulders, armes, & hāds, & said that armes were

part of a souldiers body, being so fitly made & borne, that need requiring, they could throw down their burdens, & vse their ready armes in fight, as the members of their bodies. Yet must care be had, that their weight exceed not the strength of him, that beareth them. For who wil be able to continue long in fight, that beside the labour of fight, is charged with a burden more, then he can well bear? The proofe is plain in beasts, which how strong soever they be, faint & tire vnder to much weight. ^a *Alian* after speaking of the length of pikes, giueth this rule, that they bee noe longer then a man may well vse, & wield in handling. To much length maketh them to heavy, & unsitte to be managed; wherby they rest vnprofitable to offend the enemy. In this property of fittnesse those armes & weapons are comprehended, which are of most vse in the field. For as in all other artes thinges of greatest effect are alwayes praferred, so is it in warr. There is great advantage in armes, which is the cause that one kinde hath been preferred before another. *Emilius Probus* giueth a notable testimony of skill in matters of warre to *Iphicrates*, of whom he writeth thus: ^b *Iphicrates* the Athenian invented many things in warr. Hee chaunged the armes of the foote: For whereas before they vsed great targets, short pikes, & litle swordes, he gaue them litle round targets, called *Pelice*, that they might be fitter for motions, & encounters, and doubled the file of their pikes, & made their swordes longer. Hee likewise chaunged their Curaces, & in stede of iron, & brasse, brought in other wrought of linen, wherby he made them nimbler at all assayes. For lessening the weight, hee brought to passe, that they as much covered the body, and yet were very light, and fite for vse. Of these targets, which *Iphicrates* invented, the names of *Peltati* (Targetiers) sprong: of whom wee shall hear more in this chapter. And yet wee must not heereof conclude that *Iphicrates* chaunged all the armed foote into Targetiers; (for the Athenians had still their armed, notwithstanding this invention of Targetiers, as ^c *Xenophon* testifieth) but where as the Athenians before had noe targetiers of their owne people, (as I coniecture) *Iphicrates* brought in this kind of armour: and so of the armed, hee made some targetiers, & left the rest to the armes, they bore before: iudging it more profitable to haue both Targetiers, & Armed of their owne people, then armed alone. ^d *Philopomen* also the braue Achaean Generall taught his Countrey-men in stede of longe targets & lavelines to take a round target (called *Aspis*) & a pike after the Macedonian maner; and to arme themselves with head-pieces, Curaces, & greues, and to settle themselves to a staide, and firme kind of fight, in lieu of concursory, and pelastical encounters, and by this meanes brought the to be valiant, & braue souldiers, & victorious in their fights against their enemies. ^e *Polyb.* discoursing of the Gaulois & Spanish swordes of auncient time, saith, that the Gaulois sword was so fashioned, that it serued onely to strike with, and but for one stroke: after which it so bowed both in length & breadth, that vnlesse the point were rested vpon the grownd, & the blade rightened, you could not strike with it the second time. But the Spanish sword was both for thrust & stroke, having a strong point, & a stiffe & sure edge to strike withal on either side by reason of the firmnesse of the blade. This difference the Romans espied, and being excellent imitators of all thinges, which were best for vse (though they were enemies from whom they tooke them,) made choice of the Spanish sword, & after *Annibals* time caused their foote to vse noe other. ^f *Suidas* witnesseth it: The Spaniards, saith he, in forme of swordes farre excell all other nations. For their swords both haue a strong point, and an edge on either side, that entreteth deep in striking. Which caused the Romans, to lay down their owne countrey swordes, and take the Spanish forme from them, that followed *Anniball*. The forme they took, but the goodnesse of the mettall, & exactnesse of the temper they

^a Aemil prob in Iphicrates & Diol. lib. 1. 15, 490

^c Xenoph. Hist. Graec. lib. 1. 15, 490

^d Philo. in Philo. Polyb. 5 in Philo. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

^e Polyb. lib. 2. 11. C. 1. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

^f Suidas in Macedonia

they could never attaine vnto. The Romans then reiected the french swordes, as of small vse, & imitated the Spanish, because they were fitt for service. *Xenophon* describing the nations, which followed *Craesus* against *Cyrus*, their manner of arming, and order in battaile, telleth of the ^a Egyptians, that they were armed with targets reaching downe to their foote, with long pikes, & with swordes, which they call *Copides*, & for order, stood a hundred in depth, & bringeth in *Cyrus* deriding this manner of arming, and order, to his souldiers, sayeng they were alike armed, alike embattailed. For their targets, saith he, are greater then is fite for action, & for fight, & being rauaged a hundred deep, it is manifest, they will hinder one another in fight, except a few. ^b *Annibal*, after his first victory against the Romans, armed his Africans (his best & most trusty souldiers) with the armour of the slaine Romans, because he found it better, then his owne, & *Pyrrhus* used not onely the armour, but the Italian souldiers also: & rauaged them a cohort & a Merarchy, alter natiuely one by another. And ^c *Mithridates* after his experience in his first wars with the Romans, that aswell in arming, as in manner of fight, they excelled all other nations, left the arming of his owne Countrey, & brought in the Roman sword, & target, & reduced all as nere, as hee could vnto their discipline. So then strength & fittnesse are required in armes. To them is comelinesse adioyned. The shield of *Achilles* how was it bewitched with pictures & Stories by *Vulcan*: and that of *Eneas*, comming out of the same forge, how glorious was it? To say nothing of the braue armes of *Hector*, *Agamemnon*, *Diomedes*, *Glaucus*, *Turnus*, *Mezentius*, & other. ^d *Alexanders* armes were very rich. He had a Sicilian Caskock gyrded vpon a double linen Curace the spoile of *Iffos*: his headpiece was of iron, shining like pure silver, the work of *Theophilus*; about his necke was an iron gorget beset with precious stones. A sword hee had of wonderful temper & lightnesse, the gift of the Citiean King. Hee wore a baudricke of prodigious worke, then the rest of his armour, the work of the elder *Elicon*, & the honour of the Rhodian City. ^e And *Cyrus* the elder, that lived before *Alex.* time, had armes provided by his Grandfather *Astyages* both very faire, & fite for his body. ^f *Abradates* the Susian king had his headpiece of gold, & vambraces, and bracelets about his wrists, & a purple Coate, and a plume of hyacinthine feathers. Neither did this bravery rest amongst the Princes alone. The souldiers of *Cyrus* were furnished with the same armes, that *Cyrus* himselfe bore, with scarlet coates, Curaces of brasse, brasse helmets, white plumcs, swordes, & euery one a darte. They differed onely in this that their armes were gilded, *Cyrus</*

Yet may I truly affirme, that the use of plumes is very auncient, & that the Romans borrowed it from the Gracians, and the Gracians from the Carians, who were the first inventers of them. As much is testified by ^a Polyenus: He saith that Tementes K. of Egypt going to the oracle of Ammon about the state of his kingdome, had answer to beware & take heed of Cockes. Psammetichus, that sought the kingdom, had Pigretes a Carian to one of his familiar friends & learning of him, that the Carians were the first that invented Plumes to their helmets, & evē then continued the use of them, & conjecturing that the meaning of the Oracle was not of Cockes, but of men, that, wearing some ornament on their heads, had a resemblance of Cockes, waged a multitude of Carians against Tementes, by whose help he overthrew Tementes in battaile, & possessed himself of the crown of Egypt. Now for the true end of souldiers ornaments I wil onely adde one example. Philopamen the Achaean in reforming the abuses crept into the Achaean State with great iudgement (I will use the wordes of ^b Plutarch,) reduced to order their delicacies & superfluities. It was not possible quite to take away the sicknesse of vain & idle desires, wherewith they had of long time been possessed, delighting in excesse of appaile, in riche dyes of coverlets, & carpets, striving one with another, who should be most sumptuous in bankets & feasting. But by litle & litle beginning to turne their thoughts from vnnecessary expences to a loue of comelineffe in thinges, that were profitable & honest, he brought them at last to leaue the expences of the body, & to shew themselves gallant, & braue, in soldierly, & warlike furniture. A mā might therefore haue seene the shoppes full of silver and golden cuppes cutte a peeces, of curaces gilded with gold, of silvered targets, and bittes; the places of exercife fraught with colts then first backed for service, & with yong gallats managing their armes; & in the handes of women head-pieces adorned with divers coloured trymmings, horlemens coates, and souldiers cloakes curiously embellished with flowers. For the very sight of these things both encreaseth Spirit, & stirreth up desire, & engendreth an vndaunted boldnesse, and alacrity to daungers. In other shewes to much lavishing bringeth in effeminate nesse, & worketh a remissenesse of minde, the fence with vaine pleatings and ticklings subverting, as it were, the vigor and force of the vnderstanding. But in these the Spirits are much heighthened, and exalted. As Homer bringeth in Achilles at the very sight of his newe armour ravished and inflamed with a desire to bee doing with it. Thus garnishing the youth hee exercised & hardened them to laboure and warlike motions, making them thereby to vndergoe with desire whatsoever they were commaunded. So farre Plutarch. Out of whose opinion it followeth, that Bravery of armes raiseth the spirits, stirreth up desire to fight, maketh the souldier bold, and cherefull to perills, and as Polybius holdeth pleaseth the sight, encreaseth stature in shewe, and is a terror to the enemy. Yet ought there therein a meane to be sought, & rather an assurance followed, then vaine gazing and ostentation. Antiochus being to fight with the Romans gathered a mighty army together. And seeing them glitter with gold and silver, and with all excesse of bravery, as the manner of the Asiaticall people was, tooke so great delight therein himself, that calling Anniball unto him, hee shewed his troopes, and demaunded, if hee thought not that Army sufficient for the Romans: yes quoth Anniball, though they were the most covetous people in the world. Anniball with good reason derided the vaine shewe fitter for a mask, then a field, which hee assured himselfe, would fall into the Romans handes to bee spoiled. Mithridates committed the like error in his first warre against the Romans. For, as Sophisters are wont for the most parte, saith ^d Plutarch, hee was in the beginning vaine glorious, and conceited by prowde warring against the Romans with weake forces, but yet sette out with pompe, and bravery

^d Plutarch, in Lucullo.

^a Plin in Philop. Polyb. li. 11. 629.

^b Polyen. li. 7 in psammetch. 9.

^a Herod. li. 1. 54

bravery to the outward view: But being foiled to his shame, and weighing in his minde, he must take vp second armes against them, he sought to reduce his forces to a true kinde of arming, & fitt for the service, he intended. Reiecting therefore multitudes, and confuted threatnings of barbarians, and furnitures of armes gilded, and sette with precious stones, as being a pray for the conqueror, and noe assurance for him, that weares them, hee brought in the Roman swords, and caused long heavy targets to bee framed, and chose horses, rather that were already managed, and made fitt for service, then those, that were richly trapped and garnished. So farre Plutarch. The souldiers care therefore ought to bee first for surenesse, then for fitnesse, lastly for comelineffe and ornament in armes. If the two first fail, the last availeth litle, and will proue rather a burden, then a defence. And thus much of armes in generall: Nowe followe the particulars of armes, as they are in Aelian.

1 Preparacions absolutely necessary for warre] The preparacions, wherof Aelian speaketh, are so necessary, that without them noe warre can be made or continued. For purposing to fight by water you must haue shippes, by land, you must haue foote, and horse. For which, if you provide noe armes, you put them into the field not to fight, but to bee slaughtered. The manner of fight in the field is not of one sort. Some time celerity is needfull, to attempt or prevent the enemy: sometime a slowe and sure proceeding, lest, with to much hast, wee be overtaken our selues. Therefore the divers arming of souldiers, ought to be such, that they may serue for all occasions, and uses, and that wee may employ alwayes to service such, as by reason of their armour, shall most fitt our purpose. Wherefore Iphicrates fittly resembled an army to a mans body: calling the heavy-armed the body, the light-armed the hands, the horse the feete, and the Generall the head: and as, if any of the rest were wanting, the army should bee lame, and haltered, so if there want a Generall, it is unprofitable, and of noe use. The heavy-armed are the body, which giue life and foode, as it were, to the rest: and to which the rest being distressed, retire. The light-armed are the handes, which vpon euery occasion being put out to grype and take hold vpon the enemy, are drawn in againe, when it is expedient. The horse, as feet, moue with celerity: the Generall is the head, that ruleth, that watcheth, that careth for the rest, directing the times of their motion, and of their rest. So then the whole force of the field consisteth of horse, and foote. And the foote are reparted into three kindes.

1. Armed, Targetiers and light-armed] These severall kindes of souldiers were used by all the Gracians, especially by the ^b Athenians, Lacedaemonians, and Thebans, who were the mightiest, and the most warlike people of Greece. Alexander had them in his army against Darius. When Alexander, saith Arrian, came to the place, where Cyrus (with whom Xenophon was) encamped, and sawe the streights of Cilicia possessed with a strong garrd, hee left Parmenio with the heavy-armed, to stay behind, himselfe about the first watch taking with him the Hypaspistes, archiers, and Agrians, marched on toward the streights in the night. The armed were left with Parmenion, himselfe tooke with him the Hypaspistes (targetiers archiers, and Agrians: ^d These Agrians were darters on foote. The like is to be found in diuers other places of Arrian. ^e Pyrrhus also, that followed the Macedonian manner in arming his souldiers, had the same division of armes. ^f And Philip King of Macedony sonne of Demetrius. ^g And Antiochus, that warred against the Romans.

2 The armed beare the heaviest furniture] This heavy furniture appeareth not by description of the armes, which Aelian giueth them: which are a Macedonian

B 4 target,

^a Plutarch in Pe. Iopida. Polyen. l. 3 in Iphicr. 23 Leo ca. 20 §. 198

^b Thucyd. lib. 4. 315. B. C.

^c Arrian. li. 2. 37.

^d Arrian. li. 1. 14

^e Plutarch. in Pyrrho.

^f Polyb. li. 4. 33

^g Appian in Syriac 207. D.

target, and a pike onely. * Iphicrates, besides the target (lesse, then the Macedonian target) which he armed his Targetier withall, gave him both a pike & a linen curace: So that if the Macedonian armed bore noe more then a Target and a pike, his armes should be lighter, then Iphicrates his Targetier, who had a target, a pike, & a linen Curace. It hath been the manner of some Nations to beare targets alone without Curaces. So did the Egyptians in ^a Xenophon: So the Gauls in ^b Pausanias. There are againe, that have borne Curaces without Targets: as Phorcys the Phrygian in Homer: of which kinde of Curace, because it some what resembleth the Curaces of our time, I will reherse the description out of ^c Pausanias. There lay vpon the aul:er, saith hee, a brasen Curace, the forme whereof agreeth not with the vse of our times, but of old it was common. It had two plates of brasfe, one fitte for the brest and the belly, the other to cover the backe. That before was called gyalon (the hollow part) that behynd Prosegon (because it was added to the other.) They were fastened together with buttons behinde. It seemeth to bee a sufficient defence for a mans body without a Target. Therefore Homer maketh Phorcys the Phrygian to fight without a target, because he wore such a Curace. But yet, that it was not the manner of the Macedonian armed to beare pike & target alone, may be plaine many wayes. First Polyen giueth them headpieces, & greues, and targets, and pikes. Then doubt I not but they were as well armed as the rest of the Gracians, within whose Panoplia Curaces were comprehended as ^e S. Paule testifieth, reckoning as parcels of the Panoplia, a Curace, a target, & a headpiece. Now that the Macedonians had also their Panoplia (full or compleate arming) is to be fownd in ^f Diod. Siculus. Where also Chorus the Macedonian (whom ^g Curtius calleth Horatas) is said in the fight betwixt him & Dioxiippus to be fully armed. ^h Leo describeth the Panoplia of the Macedonians after this manner. Alexander, saith hee, armed his Macedonians with a large target, a sword, a head-piece, greues, vambraces, and a long pike. Philopemen (as is before reherfed) reducing his Achaeans to the Macedonian arming, bringeth them to Curaces, headpieces & greues. The names also, that are attributed to the Armed, shew, they were otherwise armed. ⁱ Plutarch calleth them Pephraemenos, & Cataphractos, as having their bodies all armed & opposeth them to Euzoni (lights, or naked:) And by ^j Vegetius, the armour is self is named Cataphracta, because the whole body is covered therewith. ^k Xenophon termeth them Thoracophoros bea- ring Curaces.) These are the strength of the battaie, and a ^l strong wall, or rather a fortresse of the field, to whom the light-armed, and ^m the horse also retire in time of need. As long as they stand, the field is not lost, being defeated, the rest can make noe resistance. Being armed with a single target without other armes, they incur the same daunger, that the Romans in Gracians time did, whose for want of Curaces were entierly destroyed with the arrowes of the Gothes. Wherefore, it seemeth, ⁿ Alian heer pointeth at the principall armes onely of the armed Macedonian. For after ward discoursing of the light-armed, he saith, they neither had Curace, nor greue, nor long or round target: implieng thereby, that the armed had them all. ^o Livy lib 9. 243 So ⁿ Livy, comparing the armes of the Romans and Macedonians together, saith noe more, then, that the Macedonians were armed with a round target and a pike, the Romans with a long target, and a darte, called Pilum; when himself had ^p before declared, they had headpieces, Curaces, and greues.

3 Vsing targets after the Macedonian manner] Targets were of two sortes, round targets, and long targets. Long targets were called Thureo, and were in forme like a doore, from whence they had their name. For Thura signifies a doore. These the Romans, and Gauls used, albeit some what different in forme. The round had eight full handfulls in diameter, as ^q Alian saith, and were termed Aspides. Long targets were much disliked by the Gracians. Cyrus in Xenophon derideth them,

as both hindring the sight, & being unwieldy: ^a and Philopemen changed them into round targets following the Macedonian manner. The targets of Philopamen ^b Pausanias termeth Argolican targets: It may be because they were first used by the Argives in the battaile betwixt ^c Acrisius Dannes father, and Pratus, who contended about the king- dome of Argos.

Of what matter these targets were, is a question. Some take them to have been made of other matter, & covered over with brasfe: & that otherwise the souldier should not have been able to beare born them for the weight. I deny not, that in auncient time some targets were plated with brasfe: the rather, because I find, that Alexander to match the Indian pompe covered the targets of his souldiers with plates of silver. But, that the ordinary Macedonian target was so covered, I deny. ^d Alian after calleth them chalce (brasen) not epichalce (covered with brasfe). ^e Polyb. saith, that the Macedonians in the time of K. Philip the sonne of Demetrius were called Chalcaspides (Brasen targetiers) not epichalkitai, by which name, as ^f Hesychius hath, they were called, that had their targets covered with brasfe. So like wise ^g in the time of Persens: And the Megapolitans, whose imi- tated the Macedonian manner of arming, are termed Chalcaspides ^h in Polybius: I haue shewed, that the Lacedemonians had ⁱ brasen targets by the institution of Lycurgus: & that, in the time of the Heroes almost all armour was made of brasfe. The targets of the Laceda- monians that were flime at the battaile of Leuctra were brasfe, and so bee seene in the time of Pausanias: and the brasen target ^k of Pyrrhus, which he left at Argos, being there slaine, was kept in the temple of Ceres. As for the weight, it is not so great but it may become light enough by vse, and exercise. Wee see iron targets in vse at this day, and not hard to be borne. And albeit the weight bee not for every mans strength, yet since it hath bene, and is, the manner to make choise of souldiers, and to fitte them with armes according to the ability of their bodies, I see noe reason, but the stronger sort might well beare them. Another sort of targets there was which differed from the Macedonian not so much in forme of roundnesse, as in matter, and manner of carieng. They were made of wicker, and borne in the left hand as our bucklers, which wee used not long since, and ^l some covered over with hides, some not. ^m Xenophon saith, that Cyrus the elder armed the Persians with these wicker targets: & reko- ning up the nations, through whose Countries the Gracians passed in their returne out of Per- sia, & describing their armes, ⁿ reporteth that the Chalybes, Tauchi, & Phasians had targets of this kinde. Now, that they were borne in the left hand, is clear by the same Xenoph. ^o Hee writeth thus of the fight betwixt Cyrus & Craesus: The Egyptians & Persians encoun- tring together, the fight was hard, & sharpe: & the Egyptians aswel in number as in armes, had the advantage. For they fought with stiffe, long pikes, & their large targets better covered their bodies, then Curaces, or wicker targets, and being borne on their shoulders availed to joint thrusting forward. Serring therefore their targets close, they advanced, & ranne on. The Persians were not able to endure the shock, by reason they bore their wicker targets at the armes end, but retiring by litle, & litle, & giving, & taking blowes, they main- teined the fight till they came to the Engins. So farre Xenophon. Out of which words a man may plainly understand the manner of beaering these wicker targets, which by rea- son of lightnesse might easily bee held out at armes end. And as the Egyptian tar- gets, which reached downe to the foote, must needes bee heavy, and therefore had need of the shoulder to support it, so was it with the brasen targets of the Macedonians, which were also weighty, by reason of the matter, they were made of. These therefore were like wise caried on the shoulder. Plutarch wisnessteth it in the life of Aemilius. And the same Plutarch rehersteth that Cleomenes the King of Sparta taught his Lacedaemonians, in steede of a speare, to use a pike with both bandes, and to beare their targets

targets vpon the strappe not by the handle. The wordes are obscure, & need light, which I will giue as shortly, as I can. I find three wordes amongst the Gracians, all pertaining to a target. They are those Telamon, ochane, or ochanon, and porpax. Telamon in this sense (for it signifieth otherwise a band) is by all confessed to bee the broad strappe, which is fastened to the handle of the target, & holdeth the target being cast about the necke, vnto the back of Ochane, & porpax is some variance. ^a Suidas saith that Ochanon is ὀκάνη and porpax is πορπὰξ. The hold of the target ^b Hefychius calleth is the Porpax of the target, & the band, ^c δίοπος. Of Porpax ^d Hefychius saith it is the handle of the target, & taketh Porpe in the same sense, making it the thing bearing vpon the target into which the hand and arme to the elbow is thrust. ^e Suidas saith, Porpax is it, that they hold the target by; which is called ochanes: & againe, that some take it for the band of the target; other some for the middell iron that goeth through the target, on which the fouldier taketh hold. So that both Hefychius, & Suidas agree, that Ochanon & Porpax are sometime alone, and signify the handle of the Target. In which sense ^f Herodotus & ^g Pausanias take Ochanon also. Hefychius further interpreteth it for the band of the target (ὀκάνη) which signification better agreeth with the meaning of Plutarch, who maketh an apparant difference betwixt the, reporting that Cleomenes taught the Lacedemonians to carry their targets, by the Ochane, not by the Porpax. When he saith by the Ochane, hee meaneth by the strappe, by which, being fastened about the necke, the target is throwne over to the back, & resteth vpon the left shoulder. That, which I say, will better appeare, if we marke, what the Lacedemonians did before, & what Cleomenes aduised them vnto. Before they carried a speare in the right hand, and a target by the handle in the left, so that both their hands were full. The speare was not able to match the enemies pike (for ^h Cleomenes had often to doe with the Macedonians & Achaeans, whose both used pikes) & pikes, the Lacedemonians could not wield, with one hand; So then, to giue them liberty of both hands, he counselled the to carry their targets at their backs by the strappe or Ochane (which was the Macedonian manner) and not to hold them any more by the Porpax or handle; and so to free their left hand, to apply both to the menaging of a pike. This I take to be the direct meaning of Plutarch: Cleomenes then perswaded them to leaue their speares, & take pikes. And lest the target in the left hand might proue an impediment to the vse of a pike, hee thought best they should carry them at their backs by the Ochane. To carry them then by the strappe at the backe is to giue free vse to the left hand, without which a pike, specially a long pike, such as Cleomenes aduised them vnto, cannot be wielded: as experience will teache any man, that list to make triall.

4 And long pikes.] Pikes for the most parte haue bene called by two names by the Gracians; Doru, and Sarissa. Alian nameth them Dorata both heere, and in other places of this book. ⁱ Xenophon, speaking of the weapons of the Chalybes, saith they had Dorata of 15. cubits long; armed with iron at one end onely. Yet is Doru taken for a speare oftentimes, as in that place of ^j Plutarch last recited where Cleomenes perswaded the Lacedemonians to change their Dorata (speares) into Sarissas (pikes.) The like recounteth hee of ^k Philopamen, who changed the speares of the Achaeans into pikes, calling the speares, Dorata, the pikes, Sarissas. And even in this place Alian termeth them not Dorata simply, but with addition of Perimekestera, of a long sife. And after describing the armes of the Pelastres hee saith their speares (Dorata) were much shorter then the pikes (Sarissas) of the armed. Properly the pike of the Macedonian is termed Sarissa; if sometime Doru, some other word is added to auoide the ordinary signification of Doru; as Doru macron ^l in Xenophon, Doru perimekes in Alian. Yet deny I not, but it may bee called Doru of the matter. For Doru signifieth wood of any kinde: and by

^a Suidas in Ocha
au.
^b Hefychius in
Ochano
^c Hefychius in
Porpax.
^d Suidas in Por-
Fax.
^e Herodotus li.
1. 14.
^f Pausan. in El-
acis 1. 40.
^g Plutarch in vi-
ta Cleomenis
^h Xenoph. de
ex. ed. Cyr lib. 4
333. c.
ⁱ Plut in Cleom.
^j Plut. in Philo.
^k Xenop. de exp.
Cyri.

by consequent the wood, a pike is made of. But, as I said, the Macedonian pike is properly called Sarissa. What the length of this pike was, Alian will shewe in the 14. Chapter. And for the wood it was made of, I take it to haue bene Corneil. For I finde that the Macedonian horsemans staffe was of that wood. ^a Arrian confirmeth it, saing: And nowe the Macedonians had the better both by reason of the strength of their bodies, and experience in warre, and also because they fought with Corneil launces against Iavelins. For I assent not to the translator of Arrian who turneth Xystois Craneinois into Corneil dartes, where it should bee Corneil launces. For in that place Alexander is reported to haue fought with a lance, and to haue broken it in fight, and to haue asked another of Aretes, one of the Quiries of his stable, whose had also broke his, and fought with the truncheon, and to haue taken the lance of Diuantes the Corinthian, and returned presently to the fight, and therewith overthrowne Mithridates the sonne in lawe of Darius. Besides it is said, that the Macedonians had the advantage in weapons; Take it thus, that they fought with dartes against Iavelins, what advantage had they especially being come to the shock: Dartes are used a farre of. At hand noe man fighteth with them, vlesse hee haue noe other weapon. I thinke noe man will deny, but that a Iavelin in closing is more advantageous then a darte. And that Xyston signifieth a lance, Alian himselfe testifieth in this Chapter calling the launciers Doratophori, or Xystophori. The Macedonian then had his horsemans staffe of Corneil. Which ^b Pliny affirmeth to bee a sound and a fast wood. If his lance: a man may probably coniecture, his pike also, which exceeded the lance in length and thicnesse onely. Wee at this day preferre the Ashe before all woodes for toughnesse, lightnesse and beautie; especially if the vaine runne through to the end. Notwithstanding I finde in ^c Cicuta a knight of Venice, an old souldier, and one that followed the Emperour Charles the first in his warres of Africk, that the opinion of his time enclined rather to Firre both for lightnesse, and strength. I haue not scene the experience: therefore leane I the iudgement to triall. Wee haue then out of Alian that the armed had both target and pike, that one man should at one time vse both target, and pike in fight, against the enemy will seeme incredible in our dayes. Yet used the Macedonian souldiers both; at one instant they both charged their pikes, and covered themselves with their targets against the flying weapons of the enemy. The manner was this: when they closed with the enemy, they charged their pikes with both hands, and with a slight wryeng of the body, and lifting vpon the right shoulder, whirled their target, hanging at their backe, vpon the left shoulder, that stood next the enemy in the charge; and so covered all their body to the middle, and beneath. I haue touched it in the practise of Cleomenes. It appeareth more plainly in Plutarch, describing the battaile betwixt K. Persus, and the Consul Emilius. Hee hath this: ^d The enemy approaching Emilius issued out of his Campe, and fownd the legionary Macedonians, bearing nowe the heades of their pikes stiffe vpon the targets of the Romans, not suffering them to come vpon to the sword: which when hee sawe, and sawe with all the other Macedonians casting about their targets from behinde their shoulders, and receiving the Roman targetiers with their pikes abated together at one signal, and likewise the firmenesse of the battaile shutte vpon, & ferred, & the roughnesse of the front (the pikes lying out before) he became astonied, & affrighted, as having never before beheld so fearefull a sight. Which passion, & spectacle, hee afterward oftentimes recounted to his familer friends. This joyning of targets in the front is called Synaspismos: whereof wee shall haue occasion to speake heere after.

^a Arrian lib. 1.
15. 8.
^b Pliny natur.
hist. li. 16. cap. 40.
^c Aurel. Cicer.
de disciplina mil.
lib. 3. 11.
^d Plutarch. in
Achilio.

^a Polyb. l. 3. c. 63
^b Athen. l. 10. p. 104
^c Xenoph. de exp. lib. 3. c. 10
^d Xenoph. de exp. lib. 3. c. 10
^e Pausan. in Ar. cad. 135
^f Xenoph. de exp. lib. 3. c. 10
^g Xenoph. de exp. lib. 3. c. 10
^h Xenoph. de exp. lib. 3. c. 10
ⁱ Xenoph. de exp. lib. 3. c. 10
^j Xenoph. de exp. lib. 3. c. 10
^k Xenoph. de exp. lib. 3. c. 10
^l Xenoph. de exp. lib. 3. c. 10
^m Xenoph. de exp. lib. 3. c. 10
ⁿ Xenoph. de exp. lib. 3. c. 10
^o Xenoph. de exp. lib. 3. c. 10
^p Xenoph. de exp. lib. 3. c. 10
^q Xenoph. de exp. lib. 3. c. 10
^r Xenoph. de exp. lib. 3. c. 10
^s Xenoph. de exp. lib. 3. c. 10
^t Xenoph. de exp. lib. 3. c. 10
^u Xenoph. de exp. lib. 3. c. 10
^v Xenoph. de exp. lib. 3. c. 10
^w Xenoph. de exp. lib. 3. c. 10
^x Xenoph. de exp. lib. 3. c. 10
^y Xenoph. de exp. lib. 3. c. 10
^z Xenoph. de exp. lib. 3. c. 10

5 The light. J. They had diuers names given them in the Greek history. Sometimes they are called^a Euzoni, because they so girded up their appareile about the, that they were light and fit for motion: Sometimes^b Askeuoi, because they beare no military furniture of defence: Sometimes^c Elaphroi because they resemble (as some think) a harte in lightnesse, and swiftnesse: Sometimes^d Gynnetæ (naked) because they were without defensius armes: Sometimes^e Psylloi (naked or light) as they are here termed by *Ælian* and by *Appian*, and the other, that I cited.

6 Flyeng weapons onely] The light-armed are diuided into three kindes, Archers, Darters, and Slingers. Which three kindes were of much vse amongest the Gracians, and they beare onely sling weapons. ^h Xenophon testifieth that *Cyrus* the elder had them: ⁱ And the Gracians in their returne out of Persia: ^k Alexander had them in his warre against *Darius*: and ^l Pyrrhus in his warre in Italy, Sicill and Greece: ^m The Gracians against *Brennus* King of the Gaules: ⁿ Both the Athenians & Thebans at the battaile of Delos.

7 Arrowes] Archers haue alwayes bene of speciall esteeme for the field, and preferred before the other kindes of light-armed. Many nations haue bene commended for their skill in shooting. Amongest the Gracians the Cretans were (of auncient time) sole archers, as *Pausanias* witnesseth. Yet was not their service aqual with the service of the Persians. For *Xenophon* confisseth, that the Persian bowe overreached the Cretan a great way: and that the Rhodians with their sling owt-threw the Cretan bow. Of the Carduchans a people, through whose Countrey the Gracians passed at their returne out of Persia *Xenophon* writeth thus: They caried noe other armes, then bowes and slinges. They were excellent archers; and had bowes well nigh three cubits long; arrowes more, then two Cubits. When they shotte, they drewe the string, applieng their hand some what toward the neither end of the bowe, setting their left foote forward. With their arrowes they pierced both targets, and Curates. The Gracians putting thonges to the middest of their arrowes sent them back at the enemy in steede of Dartes. The same in effect is reported by ^q *Diodorus Siculus*. Of the Parthian horsemen, *Appian* saith: When *Crassus* commaunded the light-armed to disband, & goe to the charge they went not farre, but meeting with many arrowes, and being sore galled with them, they retired streight, and hid themselves amongest the armed, and gaue beginning of disorder, and feare, representing to the sight of the rest, the force, and violence of the shotte, that rentall armes, they fell vpon, and made way aswell thorough bodies, that had the best, as the worst furniture defensiu: giving mighty and violent strokes from stiffe and great bowes, and forcing out the arrowe boisterously with the compasse, and bent of the bowe. ^r *Plutarch* hath the very wordes, that are in *Appian*. The Indians also were good archers, albeit not much praised by *Q. Curtius*, ^s Hee saith: their arrowes were two Cubits long, which they deliver out of their bowes, with more labour, then effect: for as much as the arrow, whose whole efficacy is in lightnesse, becometh altogether vnwieldy by reason of the weight. And yet hee telleth, that *Alexander*, at the assault of the principall City of the Mallians, was strooke thorough his Curace into the side beneath the pappes with an Indian arrowe: with whome ^t *Plutarch* and ^u *Diodorus Siculus* accord. ^v *Arrian* addeth the wound was so deep, that his breath was seene to issue out together with his blood. The Gothes and other people of the north, that invaded the Roman empire, had their chiefe victories against the Romans by the help of bowes, and arrowes. ^w *Vegetius* (before alleaged) speaketh it plainly: So our souldiers, saith hee, vnarmed both

^p Xenoph. de exp. lib. 3. c. 10
^q Diodor. Sicul. lib. 14. c. 41
^r Plutarch. in crasso
^s Curtius lib. 8. c. 10
^t Plutarch in Alexander
^u Diodor. Sicul. lib. 17. c. 64
^v Arrian. l. 6. c. 29
^w Veget. lib. 1. c. 20

^x Veget. lib. 1. c. 20
^y Veget. lib. 1. c. 20
^z Veget. lib. 1. c. 20

both bodies and heads, encountering with the Gothes, were oftentimes wholly defeated, and slaine, with the multitude of their arrowes. I may not pretermitt the praise of our nation in this skill. Our owne stories testify, that the great battailes, we gayned against the french, were gayned by the joint-shooting of our archers principally. And that the English haue heretofore excelled in archery & shooting, is cleere by the testimony even of Strangers. ^a *Cicuta* (whom I named before) commending the vse of bowes, as necessary for the service of the field (& that long after gunnes were invented) followeth the English before all other, and setteth him downe, as a patterne for other to follow. And ^b *Patritius*, disputing of the violence of arrows, doubteth not to affirme, that an English arrowe with a litle waxe put vpon the point of the head, will passe through any ordinary Corsette or Curace. Howsoever the credit of bowes is lost, at this present, with many great souldiers, yet haue they of auncient time been highly prized. ^c *Vegetius* saith: how great advantage good archers bring in fight, both *Cato* in his bookes of military discipline doth shewe evidently, and *Claudius*, by augmenting the number of archers, and teaching of them the vse of their bowes, overcame the enemy, whome before hee was not able to matche. *Scipio Africanus* (the yonger) being to giue battaile to the Numantines, that before had forced a Roman army to passe vnder the yoake, thought hee could not otherwise haue the better, vnlesse hee mingled chosen archers in euery Century. And ^d *Leo* the Emperour in his Constitutions military buth this Constitution amongest other: You shall commaund all the Roman youth, till they come to fourty yeares of age, whether they haue meane skill in shooting, or not, to carry bowes & quivers of arrowes. For since the art of shooting hath been neglected, many, & great losses haue befallen the Romans. And in another place: You shall enioyne the Commanders vnder you, in winter to take a view, and to signify to the Turmarches (Coronells) how many horse, & what kinde of armes the souldiers, vnder their commaundes, stand in need of, that necessary provision bee made, & the souldiers be furnished in time convenient. But specially you are to haue care of archers; & that they, whoe remaine at home, & haue vacation from warre, hold bowes and arrowes in their howses. For carelesnesse heerin hath brought great dammage to the Roman State. So *Leo*. This of old time was the opinion of the Romans concerning archers. How wee are fallen out with them in our dayes (the skill of the bowe, being a quality so commendable, and so proper to our nation) I knowe not, vnlesse fire-weapons perhaps haue put them out of countenance. And surely it may not bee denied, that the force of fireweapons of our time doth farre exceed the height of all old inventions for anyeng the enemy. And, when I haue given them the first place, I will not doubt to giue the second to bowes and arrowes: being so farre from casting them of, that I would rather follow the wisdom of the Gracians; whoe albeit they esteemed arrowes the best sling weapons, yet thought it not amisse to hold in vse slinges, and dartes. Every weapon hath it property; and that which is fite for one service, is not so fite for another. The fire-weapons haue their advantages; they haue also their disadvantages. Their advantage is, they pierce all defence of armour, and lighting vpon a place of the body, the wound whereof endangereth life, they bring with them certeine death. Their disadvantages are, they are not alwayes certeine, sometimes for want of charging, sometimes through overcharging, sometimes the bullet rowling out, sometimes for want of good powder, or of dried powder, sometimes because of an ill dried matche, not fite to coale, or not well cocked. Besides they are somewhat long in charging, while the musketier takes downe his musket, vncockes the matche, blowes, proynes, shuttes, casts off the pan, casts

^a Amel. Cicuta
^b Patrit. Parall.
^c Veget. lib. 1. c. 20
^d Leo. l. 1. c. 10

^e Veget. lib. 1. c. 20
^f Veget. lib. 1. c. 20
^g Veget. lib. 1. c. 20
^h Veget. lib. 1. c. 20
ⁱ Veget. lib. 1. c. 20
^j Veget. lib. 1. c. 20
^k Veget. lib. 1. c. 20
^l Veget. lib. 1. c. 20
^m Veget. lib. 1. c. 20
ⁿ Veget. lib. 1. c. 20
^o Veget. lib. 1. c. 20
^p Veget. lib. 1. c. 20
^q Veget. lib. 1. c. 20
^r Veget. lib. 1. c. 20
^s Veget. lib. 1. c. 20
^t Veget. lib. 1. c. 20
^u Veget. lib. 1. c. 20
^v Veget. lib. 1. c. 20
^w Veget. lib. 1. c. 20
^x Veget. lib. 1. c. 20
^y Veget. lib. 1. c. 20
^z Veget. lib. 1. c. 20

^a Leo. l. 1. c. 10
^b Leo. l. 1. c. 10
^c Leo. l. 1. c. 10
^d Leo. l. 1. c. 10
^e Leo. l. 1. c. 10
^f Leo. l. 1. c. 10
^g Leo. l. 1. c. 10
^h Leo. l. 1. c. 10
ⁱ Leo. l. 1. c. 10
^j Leo. l. 1. c. 10
^k Leo. l. 1. c. 10
^l Leo. l. 1. c. 10
^m Leo. l. 1. c. 10
ⁿ Leo. l. 1. c. 10
^o Leo. l. 1. c. 10
^p Leo. l. 1. c. 10
^q Leo. l. 1. c. 10
^r Leo. l. 1. c. 10
^s Leo. l. 1. c. 10
^t Leo. l. 1. c. 10
^u Leo. l. 1. c. 10
^v Leo. l. 1. c. 10
^w Leo. l. 1. c. 10
^x Leo. l. 1. c. 10
^y Leo. l. 1. c. 10
^z Leo. l. 1. c. 10

^a Leo. l. 1. c. 10
^b Leo. l. 1. c. 10
^c Leo. l. 1. c. 10
^d Leo. l. 1. c. 10
^e Leo. l. 1. c. 10
^f Leo. l. 1. c. 10
^g Leo. l. 1. c. 10
^h Leo. l. 1. c. 10
ⁱ Leo. l. 1. c. 10
^j Leo. l. 1. c. 10
^k Leo. l. 1. c. 10
^l Leo. l. 1. c. 10
^m Leo. l. 1. c. 10
ⁿ Leo. l. 1. c. 10
^o Leo. l. 1. c. 10
^p Leo. l. 1. c. 10
^q Leo. l. 1. c. 10
^r Leo. l. 1. c. 10
^s Leo. l. 1. c. 10
^t Leo. l. 1. c. 10
^u Leo. l. 1. c. 10
^v Leo. l. 1. c. 10
^w Leo. l. 1. c. 10
^x Leo. l. 1. c. 10
^y Leo. l. 1. c. 10
^z Leo. l. 1. c. 10

castes about the musket, opens his charges, chargerth, drawes out his skowring stick, rammes in the powder, drawes out againe, and puts vp his skowring stick, layes the musket on the rest, blowes of the matche, cockes, and tries it, gardes the pan, and so makes ready. *All which actions must necessarily bee observed, if you will not faile of the true use of a musket.* In raine, snowe, fogges, or when the enemy hath gayned the winde, they haue small use. *Adde that but one ranke (that is the first) can giue fire vpon the enemy at once.* For the rest behind, discharging, shall either wound their owne Companions before, or else shoote at random. and so nothing endaunger the enemy, the force of a musket being onely auaileable at point blank. Contrarywise the disadvantage of arrowes is in the weaknesse of the stroke, which is not able to enter a Curace, that the foote or horse nowe use. Yet can noe weaether bee founde, where in you may not haue good vs of bowes: raine, snowe, winde, haile, fogges, hinder little (especially the string of the bowe being not so wette) may rather profit. Because in them you can hardly discern, much lesse auaide, the fall of the arrowe. As for quicknesse in delivery the bowe farre excellith the musket. A good single archer is able to giue five shotte in exchange for one of the musketier; and that with such certaintie, that you shall not heare of an accident that misseith the delivery of his arrow, where the musketier, often fitteth by reason of the accidents and impediments: before by mee rehearsed. Toime that a whole Squadron of archers, being embattailed, may shoote at once together: which onely the first ranke of musketiers may doe. And make the case there were a hundred musketiers, and a hundred bowe-men eche digested into ten files, eche file coneyning ten men, the bowe men shall bee able to shoote at once a hundred arrowes (all theire arrowes) for ten bullets giuen by the musketiers, namely those ten of the first ranke discharging alone. It must not bee pretermitted, that the bowe and quiver both for marching, & all service, are lighter and of lesse labour to use, then a musket, which is noe small advantage in armes and fight. To conclude the bowe-men may bee placed behind the armed foote, and yet in shooting over the Phalange annoy the enemy before ioyning, and all the time of fight, even whilst they are at pushe of pike; where the musketier, there placed, must either idly look on, or else playeng with his musket, most of all endaunger his owne friendes. Neither is the force of arrowes so weake, as is immagined, noe not in the arming of our dayes. For the pike albeit hee haue his head and body covered, yet are his legges, and feete, his armes, and handes open to woundes: any of which parts being wounded brings a disability of service. To say nothing of his face, and eyes, before which the showers of arrowes falling like a tempest without intermission, must needs breed a remedilessse terrour, and make him thinke rather of saving himselfe, then offending his enemy. The musketier being also vnarmed is as subiect to the shotte of arrowes, as the archer is to the shotte of the musket; and the arrow touching any vitall parte, as much taketh away life, as doth the musket. Lastly a horse-man for his owne person (I must confesse) is safe enough from the daunger of arrowes by reason of his armour but his horse, being a faire and large mark, and having neither barbe, nor pectorall, nor ought else to hide his head or breast, how can hee escape woundes? Witnesse our fieldes in France, where our Archers alwayes beate the frenche horse, being barbed, and better armed, then our horse are, at this day. And for the bloody effect of bowes the story of Plutarch is worth the reherasing. He, in the life of Crassus hath thus: The Parthians opposing the Cataphracts against the Roman horse, the other Persians galloping heer and there dispersedly, and troubling the face of the field, broke vp from the bottom, hills offland, that raised infinite dust, whereby the Romans lost their sight and voice: and thronging together, & thrusting one another were wounded, and died not a simple, or quicke deathe, but tormented with convulsions

Plut. in Sylla.

Plutarch in Crasso.

convulsions and panges of grief, wallowing vp, and downe, in the sande to breake the arrowes in their woundes, or else endeavouring to pluck out the hooked heades, which had pierced vaines and sinewes, renting a freshe themselves, & adding torment to torment: so that many died in this manner, & the rest became vnprofitable. And when Publius Crassus desired them once more to charge the Cataphracts, they shewed their handes nailed to their targets, and their feete fastened to the grownde, whereby they were vnable either to fly, or fight. These wonders did the Parthian bowes, which notwithstanding were not to bee compared to our auncient English bowes, either for strength, or farre shooting. And that wee may not seeme to rely vpon antiquity alone. The battaile of Curzolare (commonly called the battaile of Lepanto) fought in our dayes betwixt the Turkes, & Christians by sea may serue for an experience of the service of bowes and arrowes. In which there died of the Christians by the arrowes of the Turkes above five thousand, albeit they were in galleyes and ships, and had their blindes pretended to sue from sight, and mark of the Turkes, where as the artillery of all sorts of the Christians consumed not so many Turkes: notwithstanding the Christians had the victory. Nowe then for vs to leaue the bowe, being a weapon of so great efficacy, so ready, so familiar, and as it were so domesticall to our nation, to which wee were wont to bee accustomed from our Cradle, because other nations take themselves to the Musket, hath not so much as any shewe of reason. Other nations may well forbeare that, they never had. Neither Italian, nor Spaniard, nor Frenche, nor Dutche, haue these five hundred years, been accounted Archers. It was a skill almost appropriated to our nation. By it, wee gayned the battailes of Cressy, of Poitiers, of Agincourt, in France: of Navarre, in Spaine: By it, wee made our selues famous over Christendome. And to giue it over vpon a conceit onely (for noe experience can say that our bowe was ever beaten out of the field by the musket) will proue an imitation of Asops dogge, whoe carieng a piece of fleshe in his mouth over a river, and seing the shadowe in the water, snatched at the shadowe, and lest the fleshe. I speake not this to abase the service of muskets, which all men must acknowledge to bee great: I onely shewe, there may bee good use of bowes, if our archers were such, as they were wont: which is not to bee dispaired, and will easily come with exercise.

8 Dartes] The names of dartes are diuers in the Greek Story. A Darte is often called Acontion: and thereof cometh Acontizo, to throwe a darte, and darters are called Acontistae. So doth Aelian heere terme a darte. Sometimes a darte is termed Palton of the verbe παλνν signifieng to shake or make quiver. The word Palton is much used in Arrian and Xenophon especially, when they speake of the Persian dartes. Yet Diodorus Siculus nameth the Persian darte Saunion: which name also is given to a Grecian darte by Plutarch, and by the same Diodorus. Sometimes a darte is named Doron: Doron, as I said, being a Speare, and Doration according to Suidas, a little speare, or darte. Aelian useth the word in this Chap. Lonche, albeit it properly signify the head of speare, or darte, yet doth it sometimes signify the darte it self. So is it taken in Xenophon, when hee telleth, that sieng weapons began to walk on all sides, λανχναι (that is dartes) arrowes, and stones out of slinges, and some out hands, And Diodorus Siculus hath λανχναι τας λανχναι, to throwe dartes, even in the actes of Alexander. Yet wee finde that speares were also cast vnder that name, and Xenophon saith, that the Thebans cast Dorata against the Lacedaemonians. The Darte hath beene in use amongst all nations. The matter, fashion, and force of the Roman darte may bee seene in Vegetius, and in Lipsius his Commentaries ad Polybium. The manner of the darting of the Macedonian armed appeareth in the fight betwixt Chorasus, and Diocippus before by mee mentioned: where wee finde that Chorasus cast

a Paric. paral. mil. part. 2. 39

b Xenoph. de exp. Cyr. lib. 3. 306 C
c Arr. lib. 15. F
d Xenoph. Cyr. lib. 19. D. lib. 4. 100. B & 108 C
e Diod. Sicul. lib. 17. 572 & lib. 14. 41. v. 101. Polih. lib. 2. 31. pag. 491
f Xenoph. de exp. Cyr. lib. 1. 5. 352 A. lib. de venatione 291 B
g Xenoph. de exp. Cyr. lib. 5. 352 C

h Diod. Sicul. li. 17. 607 & 615.
i Xenoph. Hist. Græcol. 5. 575 D.

k Veget. li. 1. ca. 15.
l Lips. ad Polyb. lib. 3. dialogo 1.

a Curt lib 9. 41.
b. A. D. 8. 1. 7.
A. D. 8. 1. 7.
lib 3. 61. C

Polyb. li. 6. 48. E

c Xenoph. de ex-
ped. Cyr. lib. 3.
§ 2. D. & Diod.
Sicil. lib 24. 41. E

d Xenoph. de ex-
ped. Cyr. lib. 3.
§ 7. A.

e Xenoph. H. H.
græc lib 5. 51. 9

f Xenoph. de ex-
ped. Cyr. lib. 3.
§ 6. B

first the *Alxi* (Lanceam saith Curtius) at Diouxippus, when hee thought him with in his reach. But the darters, heere spoken of, are of the light-armed. Such were the *Agrians* in Alexanders Campe, whoe in all attempts of speed were employed by Alexander, and served to purpose by reason of their lightnesse. The darte of the Græcian was a slender shaven piece of wood, about three foote long, armed at one end with a head of iron with a sharpe point, to the end to pierce, whatsoever it should fall vpon. For the length, I giue, it differeth not from the Roman darte in Polybius: and Xenophon seemeth to affirme it, when speaking of the arrowes of the Carduchians, he saith they were longer, then two cubits, & addeth, the Græcians sent them backe againe at the enemy in steede of Darts. About the middest of these dartes they fastened a thong, which was called *ἀγκυλον*, wherein, inserting their forefinger, they launced the darte with more facility. Xenophon witnesseth it in the same place, and in another place hee saith, Xenophon commaunded the targetiers to marche with their fingers in the thonges of their dartes, the archers with their arrowes nooked, the slingers with their scryppes full of stones, that they might be redy to let fly, when they were commaunded. These dartes were forcible enough to pierce armoures of that time, and that with them alone Iphicrates overthrew and destroyed a whole Nation of the Lacedæmonians, which people were accounted the best armed, and the most valiant of the Greekes before the Macedonians came in credit.

9 Stones.] There are heere mentioned two manner of throwing stones, the one with the sling, the other with hand alone, The stones, thrown with the sling, fly with much more violence, then the stones throwne with the hand: and, being cast with a skillfull and strong arm, they reach a greater way, then a man would thinke. And yet not so farre, as bullets throwne out of a sling, which by Xenophons report outreached the Persian arrowes. I have before touched the story: I will nowe lay downe Xenophons wordes. The Græcians (those ten thousand, that returned out of Persia vnder the leading of Cherisophus, & Xenophon) had not marched farre, before Mithridates appeared againe with 200. horse, and 400. Archers, & slingers, which were very nimble & light. Hee came close vp to the Græcians as a friend. Being neer, some of his horse, & foote began to shoote, other to sling, & to wound the Græcians. The reare Commanders of the Græcians were hardly bested. Yet could they doe nothing to anoy the enemy. For the Cretans shoote not so farre, as the Persians, & carieng noe armour of defence, they were faine to hide themselves with in the body of the armed; & the Darters were not able to reach the slingers of the enemy. Xenophon therefore having the reare, thought good to charge and follow the enemy. But hee was not able to overtake them, (for the Græcians had noe horse) & the Barbarian horsemen, shooting backward in their flight, wounded many of them, that gaue the chace. To remedy this inconvenience Xenophons advice was to provide horse as many, as they could. And hearing, that there were many Rhodians in the Campe, skillfull in slinging, whose slings reached twice as farre, as the Persian sling (for the Persians vied stones, that filled the hand, the Rhodians leaden bullets) hee likewise advifed to armethem with slings, and vse their service. The next day the Græcians furnished out 50 horse, & 200. slingers. And when Mithridates shewed himselfe againe with a thousand horse, & foure thousand archers, & slingers, and came vp to charge, both the Rhodian bullets light amongst his troupes, and the 50. horse issuing forth fell vpon the enemy and put him to flight, and slew many of the foote in the chace, and tooke eightene horse. Wee may heere note two kind of slinges one with the stone, the other with the bullet: and besides, that the Rhodian sling with the bullet over-reached both Cretan, and Persian bow: which was yet afterward more

more plainly declared, when Tisiphernes charging the Græcians with his Persian archers, the Rhodian slinges so terrified him, that both himselfe, and his troopes with drew. And albeit hee followed a farre off, yet durst hee noe more approche, but suffered them quietly to marche all that day, and many other afterward. In this arte of slinging, although many nations laboured, yet were there very fewe, that excelled. The Bible maketh mention of seaven hundred Gibeonites, whose skill was excellent in slinging. Of other nations none might compare with the *Baleares*: of whom Diodorus Siculus writeth thus: Their armor is three slinges, whereof they haue one about their heades, another about their waste, the third in their hand. In warre they cast greater stones, then any other, and with such force, that they may seeme to bee sent out of a Catapult. Therefore in sieges and assaults of Cities they wound the defendants of the wallles, and in the field breake targets, and head-pieces, and all defensive armes. They ayme so certainly at any marke, that they seldom fail in hitting. The cause is their continuall practise from their childehode, their mothers continually enforcing them to sling, even when they are yet children. For setting vp bread vpon a poste, as a marke, they are not allowed to eate, vntill they hitte it, and haue it given them by their mothers to eate. So farre Diodorus Siculus: with whom Vegetius agreeth. The same Vegetius saith that slinges were made either of flaxe, or of haire. The forme was that it had two ends, the one fastened to the hand, the other to let slippe, being broadest in the middest, lest the stone should fall out. Diodorus hath before expressed with what force a stone went out of a sling. Vegetius addeth, that they are more violent, then any arrowe: piercing head-pieces, Curaces, and other armes. The same Vegetius limiteth the space of their reach to six hundred foote: and saith, that slinges at that distance were seene often to hitte the marke: and attributeth as much to archers. There are, that affirme, that a leaden bullet sent out of a sling will melt with the vehement motion of the aire. Let the credit bee with the reporters. Wee haue not found that experiences in our pieces, which notwithstanding force out their bullet with fire, & that with greater violence, then any hand-sling can doe. For stones to bee cast with the hand see Vegetius. Polybius commendeth the vse of them.

10 The armour of the Argilos.] What this Argilos should meane, I see learned doubt, and I haue litle to say. Whether it come as a diminutive from *ἀργος* (swift) or from a City of Thrace, called Argilos, or from any other originall I will not affirme. Heere if the text bee not corrupted, and the worde crept in, or exchanged by the negligence of some copier, it must signifie a targetier. Which Ælians description maketh evident. That there was such a City in Thrace you shall finde in Thucydides. And that the Thracian foote for the most part were Targetiers, I remember, I haue read in Xenophon. But then a question may againe arise, seeing the inhabitants of that City were not called argiloi but argiloi (for the City it self was called Argilos) why the Targetier should bee called Argilos, and not Argilios. The change is not great. Many such mistakings are to bee found in transcribing of Copies. But I thinke rather there is an error in the text; and that for two causes. First because Ælian dividing the foote into three kindes, Armed, Targetiers, and light-armed, and discoursing of the armed and light-armed expressly by name, not so much as nameth the Targetier, but vnder the name of Argilos. Then for that Lipsius (whether hee had another copy of Ælian, I cannot tell) citing this very place of Ælian, citeth other wordes, then heere wee finde. The Targetiers, saith hee, (out of

a Xenoph. de ex-
ped. Cyr. lib. 3.
§ 29. C

b Ind. c. 20 v. 16
Liv. deca 3. l.
8. 207

d Veget. l. 1. c. 16
e Veget. lib. 3. c.
14 in fine.

f Veget. l. cap. 16

g Veget. l. 3. c. 23

h Ouseand. ca. 19

i Veget. l. 3. c. 23

k Thucy l. 4. § 22
C & l. 5. § 56. 10

l Lipsius ad Po-
lyb. l. 3. dialogo.
1 in fine.

Alian, as hee pretendeth vse, as it were, a middle kinde of arming. For theire Target, called *Pelta*, is a litle light Target, and theire pikes come much short of the Pikes of the armed. *Vnlesse* happily *Lipsius* haue borrowed the wordes out of *Suidas* imagining them to be *Alians*, and so citeth them vnder his name. For I finde them in *Suidas* in the explication of military appellations: but I finde them in noe edition of *Alian*, that hit herto hath bene printed.

11 A litle slight target called *Pelta*] The forme of this litle target is diuersly expressed by diuers Authors. The Scholiastes of *Thucydides* giveth it a Tetragonal or fouresided shape: with whom also iumpeth *Suidas*, *Hesychius* saith, *Pelta* is a litle target having noe circumference, meaning, I thinke, it is not rounde. Hee saith also it is a Thracian weapon: to both which significacions *Suidas* agreeth. The Thracians vsed these kindes of Targets, and often sent these Targetiers to serue the Gracians. *Nymphodorus* (seeking to make a league betwixt the Athenians and *Sitalces* King of Thracia) promised to procure *Sitalces* to send them an army of horse, and *Peltasts* (Targetiers.) *Xenophon* speaking of the Thracians, that assaulted his lodging, telleth, that after the Trumpet sounded, and many of his souldiers came to his aide, the Thracians fled casting, as their manner was, their Targets (*Peltas*) at their backs. When *Dercyllidas* invaded *Bithynia*, *Seuthes* the K. of Thracia sent him horse and *Peltasts* (targetiers) to his aide. But the *Pelta*, that *Alian* heere mentioneth, was rounde. *Suidas* in the wordes, before alleaged by *Lipsius*, as out of *Alian* called this target *Aspidice*: that is a litle *Aspis*, such as the Macedonians bore, which were without all question rounde. The invention of this *Pelta* is attributed to *Iphicrates* the Athenian. For whereas the Athenians before his time vsed large round targets (*aspides*) which were not so easy to be wielded, being heavy, he provided them litle targets to make them light, and quick for all service. He altered not the forme of the roundnesse, but diminished the weight, in abating of the breadth. *Emilius Probus* saith, hee made them beare litle targets (*Peltas*) in steede of large rounde targets (*Parme*), where vpon they were ever after called *Peltastæ*. The invention therefore of this kinde of Target is attributed to *Iphicrates*. For the litle targets of other formes were long before the age of *Iphicrates*. *Cyrus* the yonger had Gracian Targetiers in his army: and the Gracians at their returne out of Persia: and likewise those, that ioyned with *Thrasibulus* to recover Athens out of the handes of the thirty Tyrants. All which were before *Iphicrates* time. *Lipsius* taketh the *Pelta* to differ litle or nothing from the *Parma* velitaris of the Romans, which doublelesse was round. *Polybius* saith, the Roman horse-mens targets (*Parme*) were like to Cakes named *Popana*, which according to *Suidas* were broad, rounde, thinne Cakes.

12 And his pike is much shorter] If it bee as *Diodorus Siculus* and *Emilius Probus* report, that *Iphicrates* was the inuenter of the armes of the Targetier, the pike should bee litle shorter, then the Macedonian pike. Hee gaue them litle targets for great Targets, and doubled the length of their pike, and sword. If the length of the pike were doubled, I cannot see, how it should come much shorter of the Macedonian Pike. But it may bee, they were long at first, and that afterward vse, and commodity brought them to a lesse size, to the end the souldier should bee nimble and ready at charges. But had the *Peltast* noe other armes, then are heere mentioned: Hee had. And first hee had a linen Curace for lightnesse sake, and then a sword of double length to his former sword. Further hee had darts: *Xenophon* telleth that, in the battaile betwixt *Artaxerxes* & *Cyrus*, *Tisaphernes* charged the Gracian Targetiers, whoe divided themselves into two partes, and plied his horse with darts as hee passed through them. The same *Xenophon* afterward telleth of the Targetiers vnder his commaunde, that hee directed them, to hold

hold their fingers in the thongs of their darts, and bee ready to throw, when hee gaue a signe: And that these very Targetiers of *Iphicrates* with their darts and other misine weapons destroyed a whole Mora of the Lacedemonians without coming neere or closing with them. Yet *Leo* giveth the Targetiers noe more, then targets, and speares (*Dorata*). But in that (as in many other things) I make noe doubt, hee followeth *Alian*, whose wordes also hee well nigh reteynes, as well in this place, as many other. In perusing the story of *Alexander* (in *Arrian*, the most faithfull historian of his deedes) I finde noe Targetiers by the name of *Peltastæ* in all his army. The names of Armed, of archers, of Darters, of slingers I meete often: but not of *Peltastæ*. Which made mee once doubt, whether *Alexander* ever vsed them or noe. Since vpon better consideration I am induced to thinke, though the name in the story faileth, yet the kinde of souldiers, so armed, and so appointed, as *Alian* describeth, may easily be found: and that vnder the name of *Hypaspites*. Which name albeit most vsually signifieth him, that carries another mans Target, yet is it also applied to souldiers, that are neither light, nor heavy-armed, of which kinde the Targetiers were, as a meane betwixt both. That *Hypaspistes* signifieth noe heavy-armed, may bee evident by the wordes of *Arrian*. *Alexander*, when hee sawe the freights of *Cilicia* possessed with a strong garrd, left *Parmenio* behinde withall, that were heavy armed, himselfe about the first, watche taking the *Hypaspistæ*, and the Archers, and the Agrians (who were darters, as I haue shewed) led on in the night toward the freights, purposing to fall vpon the watche, before hee was looked for. Hee left all the heavy-armed with *Parmenio*, and tooke the *Hypaspistæ* with him. And in another place hee saith: *Alexander* commaunded the *Hypaspistæ* first to passe the river, and after them the Macedonian armed. Hee distinguisheth the *Hypaspistæ* from the armed. And straight after: Three dayes after *Alexander* vnderstanding that *Cleitus* & *Glaucias* were ill lodged with their army, & neither held watche, nor had cast a trenche for their owne security (for they imagined *Alexander* marched away for feare) and that their Campe was stretched out to a needlesse length, secretly repassed the river a litle before night, leading with him the *Hypaspists*, and the archers, and the Agrians, and the *Phalanges* of *Perdiccas* and *Cœnus*. And in the same booke at the assault of *Thebes*, when *Perdiccas* had engaged himselfe and brought *Amyntas* with his troups in the same danger, *Alexander* lothe to leaue them in hazard, aduanced with the rest of his army, and gaue a signe to the archers and Agrians to enter the trenche, the *Agemata* (*Livy* translateth them legions) and *Hypaspists* hee held without. So that in all these places hee distinguisheth them from the heavy armed, and maketh the *Hypaspists* one, the heavy-armed another. I might alleage other passages out of the same author, but these will suffice. That they were not of the light armed may bee proued by the same places of *Arrian*. Where they are alwaies distinguished from the archers and Darters. There targets make them unfit for slingers, and mention of slingers I finde in other places. The very name sheweth that they carry targets, and the great Etymologicon alloweth them spears beside their targets. Whereby they are clearely exempted from the light armed. It remaineth then, that they be the *peltastæ*, which *Alian* heere speaketh of, especially since they were armed with target and speare, which armes hee giveth to his targetiers, and to no other, except it be to the armed.

13 Cataphracts] The horsemen are divided into two kinds, *Cataphracts* (complete armed) and not *Cataphracts*. *Cataphracts* are those, that cover themselves and horse with armor. Not *Cataphracts*, that fight with launces, or with flying weapons. *Livy* termeth *Cataphracts* (*Loricatos*) because they wore curaces. The other sort are either launciers or *Acrobolists*. *Acrobolists* came not to the shooke, but plied the enemy a farre off with

a Scholiast. Thucyd. lib. 1, 118
b Suidas in Pelta
c Hesychius in Pelta

d Thucyd. lib. 1, 118 C

e Xenoph. de ex. p. 1. Cyri. lib. 7. 420 B
f Xenoph. hist. Græc. lib. 3, 484 B

g Suidas in Indice

h Diod. Sicul. lib. 15, 108
i Aemil. ius Probus in Iphicrate

k Xenoph. de ex. ped. Cyri. lib. 1, 263 C
l Xenoph. ibid lib. 1, 547 A & lib. 3, 312 C & lib. 4, 341 D
m Xenoph. histo. Græc. lib. 2, 472 E
n Lipsius in Annot. left. in 2. Comment. in Polyb. o Polyb. lib. 6, 471 C
p Suidas in Popana

q Aemil. Prob. in Iphicrate

r Xenoph. de ex. p. 1. Cyri. lib. 1, 270 D

s Xenoph. ibid lib. 7, 3, 77 B

a Xenoph. histo. Græc. lib. 3, 519

b Leo cap. 65.

c 37

d Arr. lib. 1, 11, 11

e Arr. lib. 1, 7, 7 A

f Arr. lib. 1, 9, 11

f Liv. dec. 4, 11, 5

fling weapons. The Launciers closed, and charged the enemy with their lances. The word Cataphrasto (to cover with arms) giveth name to the horsemen Cataphracts: and as the horsemen are called Cataphracts, so is the furniture of horse and man called Cataphragma. How they were armed Alian sheweth when he saith they cover themselves and their horses with armour yet was it not always, that the whole horse was armed. * For Xenophon speaking of the Persians in the time of the elder Cyrus, saith, they armed their horses with frontlets and pectoralls & covers for their thighs. As much hee saith of ^b the six hundred horse that followed Cyrus the younger against Artaxerxes, saying they wanted cover for their thighs. The horsemen themselves he giveth great Curasses, and cuisses, and head-pieces. So it appeareth that the horse were not all over armed, but onely their heads their breasts and their forethighes. Yet Plutarch speaking of the Cataphracts in the time of Lucullus, saith, their legs, and thighs were unarmed. Concerning the Parthians Suidas, I know not out of what Author, hath thus: The Curasse of the Parthian horsemen is made in this manner: The part before covereth his breast, and thighs, and his hands to the fingers end, and his leggs. The hinder-part, his backe, and necke, and all his head. There are buttons made for the sides, with which both the parts being fastened, it maketh the whole horsemen seem, as if hee were made of iron. The iron neither hindereth the stretching out, nor the gathering vp of his limbs, it is so exactly fitted to the nature, and life of all parts of the body. Likewise their armour thence whole horse with iron, except his hooves, because their owne armor would little availe, in case their horse miscaried. Curtius describeth the forme in the Persian horsemen, whose furniture, hee saith, was made of plate fastened together in continued dependances of scales of iron. * Appian speaking how the Parthians seeking to terrify Crassus, and his army, upon the suddaine cast away the covers of their armour, and both themselves appeared in shining curasses, and head-pieces the Median iron of which they were made darting forth a flashing, and dispersed twinkling light, and their horses glistering in brasse, and iron furniture. Yet doth Appian in the same place note, that the bellies of these horse, was not armed. * For the french horsemen, saith he, that followed young Crassus, when they perceived, how little they prevailed with their staves against the sure, and unpierceable armour of the Parthians, lighting from their owne, and creeping vnder the Parthian horses, stroke them into the bellies, and they impatient of paine and flinging heere, and there, and treading vnder foote, as well their riders as their enemies, died in the place. Plutarch hath the like. The Cataphracts, besides their armour of defence, had a lance, or horsemans staffe, to fight withall. * Plutarch affirmes it: Lucullus, saith hee, after hee sawe Tigranes his Cataphract horsemen (whose were of most account) defended as it were, by a hill, that had the ground above plaine, and broad, & the ascent (which was about fower furlongs in length) not very hard, or steepe, commaunded the Thracian, and gaulle horsemen, hee had, to giue vpon the flanke, and to put by the lances with their swords: For the onely strength of the Cataphract is his lance, and it alone hee is able to vse either in defence of himselfe, or annoying the enimie: being by reason of the weight and harshnes of his furniture like a man shutte, and locked vp in a wall. Heiber to Plutarch. Like wise the Parthian Cataphracts, albeit they vsed bowe, and arrows yet they had also lances, with which they came to the shoock with the enimie. * When the armie of Anthony (saith the same Plutarch) sawe the Parthians ready to giue on, the armed turning their faces about toward the enimie, tooke in the light armed, and shutt them vp with in their battels: themselves kneeling vpon one knee, held

^a Xenophon Cyro-
lib. 6. c. 4. A.

^b Xenophon de ex-
ped. Cyro. lib. 1.
c. 63. D.

^c Appian in Parth.
143. D.

^d Appian in Par-
thica. 143. D. &
Plut. in Crasso.

^e Plut. in Lucul.

^f Plut. in Anton.

held out their targets before, the second ranks with their targets covered the heads, and vpper parts of the foremost, & the following ranks did the like one for another, the figure was like the tyling of a house, & represented a shew worth the seeing, and was the surest defence that might bee, to make the arrows glaunce of, without harme doing. The Parthians imagining this kneeling proceeded from wearinesse, and faintnesse, layed aside their bowes, and taking in hand their lances, ranne vpon the Romans, whose giuing a iointe showte sprung vp presently, and striking them with their darts, slewe the first, and put the rest to flight. By these two testimonies the launce of the Cataphracts is clearly proved. In what manner the Cataphracts came to fight, Nazarius (cited by Stewechius) sheweth plainly in a Panegyricke of his. The Cataphracts, saith hee, in whom was the principall strength of the field, vse this discipline in charging. After closing their files, they keepe an equalitie in moving forward to charge, & being free from wounds, they break without difficulty any strength of battel opposed against them. They are saide to bee free from wounds, because both themselves & horses (especially before) are covered with sure armes. Their moving must be slow, because of the weight of their armes, which slownesse was recompensed with the violence of their charge, which neither horse, nor foote was able to resist. And yet they had another inconvenience, in that, being overthrowne, or slipping, or falling to the ground, neither horse, nor man, were able easily to raise themselves againe. Such was the weight of their armour.

14. Launciers are such] Launciers, saith Alian, ioine with the enemy, & fight hand to hand with the lance. And did not the Cataphracts so? They did, but their armour differed much. The Cataphracts both horse, and man, were all over armed. The horse of the Launciers was not armed, and himselfe, albeit hee were armed, yet not so armed, but that many parts of his body were bare of armes. And his armour came much short of the compleate. Arrian saith that the Macedonians being launciers were not able to encounter with the Scythians, whose were Cataphracts, both because of their number, and also of their manner of arming. And as the Launciers armour was not so heauie, as the compleate, so was it more heauie, then the armour of the foote. Xenophon seemeth to signifie so much, telling of himselfe, that taking the targetiers of the front, and some out of the midst of the hollow square battail, and three hundred chosen men, that Cherisophus had with him in the front, hee marched away with all speed to scife vpon the toppe of a certaine hill. ^b And exhorting his souldiers to haste, you may well, quoth Sotridas, the Sicilian, talke of haste, that are on horseback. I, in the meane time with this heauie target, am scarce able to marche. Xenophon hearing this, streight dismounted, and disranking Sotridas, tooke away his target, and with it on his shoulder continued his haft in marching. By chance hee had on at that time a horsemans armour, where with although he were overpressed, yet slacked hee nothing of his pace. The rest of the souldiers beating and reviling Sotridas compelled him both to his target, and place againe. At last they gained the hill, they purposed, and made the enimie abandon the nether ground. Xenophon was heere overpressed with the horsemans armour. If it had bene but equall in weight with a foote mans, hee might, as well haue endured it, as the rest. Plutarch sheweth likewise the weight of the horsemans armour. Philopæmen, saith hee, willing yet to giue more strength to the Kings party (hee meaneth Antigonus, the gardian of Phillip afterward King of Macedonia) & to come to hands with the enemy that was already in route, lighted from his horse, and in a horsemans Curace, and heauie armour,

Stewechius in
comment. ad. 22.
capit. lib. 8. v. 6.
Sct.

^a Appian in
Parthica. 144. A.

^b Xenophon de ex-
ped. Cyro. lib. 3. c. 22.
A.

Plutarch in Philo-
pæmen.

armour, wrestling hardly, and laboriously on foote with the ground, that was rough, & full of brooks, & ditches, hee was strooken through the thighes with a darte: the stroke beinge not daungerous, but forceble, so that the head passed through both his thighes. Hence both the heavinesse of the Launciers furnitur may be seen, and that Philopamens thighes were unarmed, through both which at once hee was wounded with a darte: And so the Launcier not so surely armed, as the Cataphract. The armes, that the Launcier bore are described by ^a Polybius speaking of the armes of the Roman horsemen; who writeth thus: The armour of their horsemen is at this day like the Græcian. Of old they had noe curaces, but fought in short gownes girded to them. By reason whereof they were ready, & active to alight from, and gett vp quickly, on their horses. But their fight was daungerous with the enemy, because they wanted armes. Their staues had two incommodities. For, being made slender and quivering, they neither could touche the mark, they aymed at, and most of them, shaken with the motion of the horse, fell out to bee broken, before the head touched, or fastened vpon any thing. Ioyne, that, having no iron point at the butt end, they served but for one stroke onely, and that at the first. And yet the head being broken of, the remnant of the staffe was of noe vse. The targets they had, were made of ox-hyde in forme like to cakes named *Popana*, which are vsed in sacrifices. And they were neither fitte to encounter the enemy, by reason they had noe stiffnesse or fastnesse in resistance, and being resolved, and foked, or putrified with raine, they could not bee any thing worthe. Finding these inconveniences by experience, they quickly chaunged for the Græcian armour; In which the first stroke of the head of the staffe is certeyne, and worketh the designed effect, by reason of the forme, which is not quivering, but stiffe and sturdy: & likewise turning forward the butte end, which is armed with a sharpe point, they might therewith fasten a sound, and forcible blowe vpon the enemy. The like may be said of the Targets, which both in charging, and defending, haue a sure & vnfailable vse. Which they noe sooner saw, then imitated. For the Romans, if any other nation, are good to change their fashions, and to chooe that, which is best, wherefoever they finde it. The Launcier then had a Curace, a head-pièce, a launce, and a sword for his armes, and this was generall in Launciers; but some had besides a target, and were therefore called targetiers. The Launciers were called in greek *Doratophoroi*, or *Xestophoroi*: two severall appellations in shewe, but signifying in deed but one thing, the one being derived from the matter, the other from the forme of the launce. ^b Doru, as I said before, signifieth wood: and because all the Launciers armes excepting the launce, were of other matter, then wood, the launce was called Doru, (of the wood) and the Launciers *Doratophoroi*. As for *Xylton*, or *Xeston* (for they signify one thing) is commeth of the verbe *Xuo*, or *Xeo* to shawe, or polish (as our ioyners doe) and the launces, being made of wood shaven, or polished, are named *Xylta*, or *Xesta*, of the forme (as I said) that is given them by shaving, and the Launciers, that beare these launces, *Xestophoroi*, or *Xyltophoroi*. And heere I am once to note for all, that wee are not to presse wordes according to the proper signification of their primitives, from whence they are derived. For considering there are more things, then names of things (as Logicians say) the most copious language, that is, cannot giue proper names to all. Heereof come the wordes of diuers significations. And howsoever names seeme at first rough, & straunge, vse, and custome maketh them smooth, and gives them passage. As the coyne of a Prince is currant by the stamp, hee setteth vpon the mettalle, what mettalle so euer it be, sine, or base.

^a Polyb. lib. 6.
471. B

^b Art. counfoun-
deth *Xylton* and
Doru lib. 1. 15. F.

16 Acrobolists] The word importeth such, as throwe aloft, or from alofte. Ballo signifieth to throwe: Acron, the highest, or the uttermost. By common vsage Acrobolizo is taken for to dart, and by consequent to skirmish a farre of. Because such as cast fling weapons, as darts, and stones, and the like, came not to stedfast fight, but lay aloofe, and onely throwe their weapons at the enemy, and of so doing are called Acrobolists. Acrobolismos in Polybius is interpreted Skirmishing. And ^a Diodorus Siculus ioyneth Acrobolismos, and a short meddley in fight together, ^b which Xenophon termeth Acrobolismos by another word flowing from the same fountaine.

17 Tarentines] They are so called of a City in Italy. Tarentum by name, the inhabitants whereof, that were horsemen, vsed this manner of fight. But he maketh two kinds of Tarentines; one, that ever fought a farre of with darts, and neuer came to hand with the enemy, the other, that after a dart or two cast, came close vp, and fought hand to hand. ^c Livy speaketh of a third kind of Tarentines, who vsed in fight two horses at once made fast together, and one being weary, leaped vpon the backe of the other.

18 Some vse darts a farre of] Of the manner of fight of these horsemen, the passage of Xenophon is worth repeating. ^d After these things done, saith hee, the aide of Dionysius (which hee sent the Lacedemonians) arrived, being more, then twenty Gallies. They brought French, and Spaniards, and aboue fifty horse. The next day the Thebans, and their confederats, embattailing their armie, and filling therewith the whole plaine even to the sea-side, & to the hills, that lay about the City (of Corinth) destroyed whatsoever, might serue to any vse. The horsemen of the Athenians, and Corinthians, seeing the strength, and multitude of the enemy, came not neere vnto them: but the horsemen of Dionysius, albeit fewe in number, galloping heere, and there, dispersedly, and putting spurrs to their horse, charged them with their darts, and in case the enemy followed, they returned with all speed, and then turned againe, and threw darts afresh. In doing these things they vsed to alight from their horse, and rest themselves, and if any of the enemy singled out to fall vpon them, leaping quickly againe to horse-backe, they fled: and being pursued any distance from the army, as soone as those that pursued them retired, the Tarentines followed, and plyed them with their darts, and put them to great distresse: forcing the whole armie to advance, and retire, as they list themselves. So farre Xenophon. Another example I will adde out of Livy of the Numidians, whose manner of fight is all one with the Tarentine manner. ^e In Liguria saith hee, nothing worthy of memorie was done a long time. At the end of the yeare all things were brought to extreame hasard. For both the Consuls camp, being assaulted, was hardly defended, and not long after, when the armie was led through a Forrest, the way whereof was streight, and narrowe, the Ligurians possessed themselves of the mouth of the straights. Through which when the Consull could find no passage, hee turned about his armie, and purposed to reduce it, the way he came. But the mouth of those straights was likewise possessed by a part of the enemies forces. And now the remembrance of the Disaster of Caudium presented it self not onely to the minds, but even almost to the eyes of euery man. There were wellnigh eight hundred Numidian horse at that time in the camp. The Commaunder of them promised the Consull to breake through on which side, hee pleased; onely he desired to know on which side most hamlets, and villages were. Vpon them, said hee, I will fall; and sett the houses on fire presently, that, that feare may compell

^a Diodor. Sicul.
lib. 15. 468.
^b Xenop. de exp.
Cyril. lib. 1. 309. C

^c Liv. decad. 4.
lib. 5. 2. C.

^d Xenoph. Hist.
Græc. lib. 7. 617. C

^e Liv. decad. 4.
lib. 5. 2. B.

compell the Ligurians to forsake the straight, they should, and runne severall wayes to defend their owne. The Consul much commended the man, and laded him with hopes of promises. The Numidians vp to horse, and began to ride heere and there, before the enemies gards, provoking yet no man. Nothing at the first sight was more contemptible. The horse, and men, were little, and lean. The horsman vn-girded, and vnarmed, saving that hee carried darts; the horse without a bridle galloping deformedly with a stiffe neck, and a head thrust out at length. They purposely augmenting this contempt fled from their horses, and dallied, and sported, to bring the enemy to a gaze. Wherefore the enemy, which at first were intentive, and ready for a charge, became gazers on, and the most part vnarmed themselves, & sett downe vpon the ground. The Numidians rode vp neerer, and then backe againe, and by little, and little, got to the skirts of the forest; as if their horses, being resty, had caried them forward against their wills. At last, putting spurs to, they broke through the midst of their enemies gards, & entring into a larger field, they sett fire on all the houses next the way; then burned they the next village, and wasted, and filled, all things with fire, and sword. The smoke first scene, then the cry of the people affrighted, lastly old men, and children, strong for succor, raised a tumult in the campe. Therefore without counsell or command every man of himself ranne to the defence of his owne, and in a moment both the enemies camp was forsaken, & the Consul, delivered from his siege, came to the place intended. By these two examples the kinde of fight, that

a Polyb. lib. 3.
255.B.

b Liv. decad. 3.
li. 2. c. 3. & Polyb. lib. 3. 224. B.
c Cesar de bell.
19 African. 475

d Arceer. in notis
ad Aelian. pag.
817.

e Plutar. in Cras.
& Appian in var.
th. c. 114. C.

f Xenoph. de ex-
ped. Cyri. lib. 3.
306. D.

these darters one horse-backe maintained, may be perceived, which was not to come neerer the enemy, but to keep a loose, and lett their darts fly. Besides not to observe any order in files, or ranks, but stragglingly to gallop the field, seeking by their disbanding to tolle the enemy out of his strength, and so to worke their advantage. And albeit in the second example, the Numidians used not their darts, yet they would have done it, if need had beene; and you shall find in other places of Livy, and Polybius, they did usually, as also in Cesar.

19 After they have spent one or two] These darters on horsebacke differ from the other before mentioned, because at the last they ioine, and fight hand to hand with the enemy; which the other did not. And what fight they with all? not with launce; for then should they be Launciers, of whom wee have spoken. But they fight with battel-axes, swordes, and such other short weapons. Suidas affirmeth it, alleged by Arceerius: These, saith hee, at first cast light darts a farre off, and afterward approaching, joyne with the enemy, fighting with battell-axes, or swordes; which kind they call light-horsemen.

20 The horsemen, that vse bowes] I need not alledge any thing to shewe that the Scythians were good archers. It is knowne to any man, that is not ignorant of History. I will onely note, that in fleeing from the enemy, they harmed as much, as in falling on. For as they fled they turned half their bodies backward, and shotte at him, that followed, and expected noe such thing. Of which fashion of fight Plutarck giueth this iudgement. The Parthians, saith hee, in their flight shoote backward, & doe it best of all other, except the Scythians; the invention being witty, both to saue themselves by that defence, and also to take away the shame of flight. That which Plutarck attributeth to the Scythians and Parthians, Xenophon saith, the Persians used also, both for manner of fight, and flight.

The

The framing of a Phalange, and definition of the art Tattick.

CHAP. III.

BVt seeing every Phalange containeth an vniting of bodies, offices of command, orders in place, a Convenient number of men, and wordes of Direction aswell for daily exercise, or trayning, as for true fights, It seemeth necessary to deduce euery of these things into perticularity. The first labour therefore in the art Tattick is for a Generall out of a multitude, that cometh to hand confused, to choose the fittest men, and dispose them into convenient places (that is to order them into files, and bodies) and of the whole number to proportion a reasonable lewie, & fitting the service in hand. For to dispose and enable an Army, skillfully to march, to encampe, & to embattle, is a matter of no small consequence. In asmuch as we often find mightie Armies through their disorder to have been defeated by a handfull of men wel disciplined & exercised. Wherefore Aeneas defineth this art to bee a science of warlike motion: Polybius, To be a skill whereby a man taking a multitude serviceable or dereth it into files, and bodies, and instructeth it sufficiently in all things pertaining to warre.

Notes.

1 THE first labour] After provision of armour followeth choice of men. What men, and out of what Climates, and of what profession, and of what age, and of what constitution of body, and of what education, are to be chosen, because Aelian referreth to the discretion of the Generall, not setting downe any particular; I will likewise passe over, noting onely some places, where hee, that is disposed to seeke, may finde the circumstances of choice of souldiers. Xenoph. Cyrop. lib. 1. 32. A. B. Polyb. lib. 6. 406. C. Et Lips. ad Polyb. lib. 1. Dialogo. 2. 3. 4. 5. Veget. lib. 1. cap. 2. 3. 4. 5. 6. 7. Et Stewechius ad de c. omnia cap. 31.

2 A reasonable lewy and fitting the service] Lewyes are to be made according to the warre, which is undertaken. The enemy is not alwaies of one strength. Sometimes the forces, against which wee are to lead our armie, are more, sometimes lesse. The Romans, if the number of enemies were not very great, used but a Consular Armie, which consisted of two legions of Romans, and of as many foote of their Allies; when greatest, onely ioyned two Consular armies together. And for Allies their foote, as I said, was equall with the Roman foote, their horse were treble as many, and the Romans having three hundred horse to a Legion, the Allies had nine hundred. Yet in case of great necessitie, wee reade, that the number of the Legions was increased in a Consular armie. Polybius reporteth that, a little before the battaile of Canne, the Consul Lucius Aemilius, and C. Terentius, had allowed in their armie, which they led against Anniball, eight Legions, which never was done before. Alexander the great being to invade the Kingdom of Persia, which for wealth, multitude of men, and largenesse of Territorie, was esteemed the richest, mightiest, and greatest Empire at that time in the world, had not in his armie above one and thirty thousand foote, and five thousand, and odde, horse. Armies composed of multitudes are neither fitt to be guided, and commanded, nor yet to be provided for.

D And

The number of a file is diversly given, for some allow it eight, some twelue, and some sixteen men. Wee for this time will retaine the number of sixteen, both because that number is proportionable to the indifferent length of a Phalange, and also, if we require at any time to double the depth thereof, and to giue it thirty two men, or to lessen, and contract it, and make it but eight; neither of both shall hinder the service of the light-armed behinde, for whether they vse Darts, or slings, or Arrowes, they may easilie with their flieng weapons overreache the depth of the Phalange.

Notes.

NExt after arming, and choyce of souldiers, it followeth to put them in order for service, that is first to file them, then to band them (which is ioyning of files) and lastly to embattaile them, which is to make a Phalange. Of these in the following chapters.

I To make files] The Tacticks haue not expressed the precepts of this arte all in the same wordes. A file is heere called Lochos, the signification whereof is diuers. Sometimes it is taken for an Ambush, and Lochan signifieth to lye in Ambush: it signifieth beside a number of men, that are of one body, as it were, and under one commaunder, who is called Lochagos, and Lochizo is to sett in files. The number of this body hath bene diuersly taken. The Thebans Lochos Hieros first instituted by Gorgidas, or as other say by Epaminondas, consisted of three hundred men. The Lochos of the Lacedemonians of fine hundred and twelue. Xenophon in his returne out of Persia telleth, that the number of the Lochoi of the Gracians, which hee ledde, was almost a hundred armed men. And when they chose extraordinary men to preserve the Placium (a hollow forme of square battail) where in the Gracians marched) from breaking, they appointed six Lochoi, of a hundred a piece, for that purpose, and Commaunders to leade them. And after hee reckoneth seventy men to a Lochos. And in the first booke of Cyrus his expedition, hee telleth of two Lochoi of the armed of the Regiment of Menon, that were slaine by the inhabitants of Cilicia, and counted them a hundred men. Cyrus in the same Xenophon commaundeth his Lochos to bee made of twenty foure men. But the Lochos, that Alian heere speaketh of is a lesse number, namely sixteen, which was the file of the Macedonians, as appeareth by Arrian, and Polybius. Albeit Arrian calleth it not Lochos, but Decas; and Polybius the depth of the battail. This number of sixteen was used by the Gracians also before King Phillips time, as appeareth by Xenophon in his historie of the Gracians. And likewise by Thucydides, who reporteth, that the Siracusans were so ordered against the Athenians. Leo saith it was the manner of the auncient warriors to make a file of sixteen, & calleth it a Tetragonall number.

2 Some allow it eight, some twelue] The Lacedemonians made the depth of their battail sometimes eight men (for a file is it, that meashureth the depth of the battail) and so fought with their enemies. Thucydides witnesseth as much: the Lacedemonians, saith hee, were not alwaies ordered in depth alike, but as their Lochagoi (they were commaunders of fine hundred and twelue a piece) thought good, commonly notwithstanding the depth was of eight a piece. Xenophon also writeth, that Dercyllidas the Lacedemonian, being to fight with Tissaphernes, and Pharnabazus, ordered his Phalange into eight. The same proportion was helde by Mnasippus the Lacedemonian against the Corcyreans,

and by Clearchus the Lacedemonian against his enemies. Xenophon saith, that Thrasylbulus the Athenian, falling out of Pyreum against Pausanias the Lacedemonian King, ranged his men into eight. His wordes are: When Thrasylbulus and the other armed sawe these things, they quickly gaue aide to their owne people, and put their armed in order eight deepe. Pausanias being hardly layed vnto, and retiring foure or fife furlongs, commaunded the Lacedemonians, and their Allies, to resort vnto him, and there casting his men into a deepe Phalange, ledde against the Athenians. Out of which wordes wee may note, that the Lacedemonians observed not alwaies that order of eight deepe, but varied according to place, or other circumstance. Yet ordinarily they gaue but eight to a file, or to the depth of their Phalange, as Thucydides witnesseth before. The same Thrasylbulus with his complices entering the base City of Athens called Pyreum to free his countrie from bondage of the thirty tyrants, having but a few with him, possessed the court, which led to the temple of Diana, called Munychia, and being assaulted by the garrison of the Lacedemonians, ordered his armed men into ten deepe, and the light armed behinde them. The tyrants, and their followers stood in battail fifty deepe. At the battail of Leuctra the Lacedemonian armed were twelue in depth, the Thebans fifty. Alexander the great leading his armie against Clitus, and Glaucias, the way being so narrow, that no more then foure might marche in front, made the depth of his armie a hundred and twenty. And the souldiers that Xenophon brought backe out of Persia, when they purposed to sacke Byzantium, put themselves without commaunde in order of fifty deepe. In the text is fifty deepe, but the margent hath eight: which I take to bee the truer reading, because Xenophon saith, the place was faire to sett a battail, being void of building, and having an even plaine. And it was not the manner of the Gracians to make a Phalange fifty deepe, vnlesse there were extraordinary occasion. In the battail of Delos betwixt the Athenians, and Thebans, the Thebans were fine and twenty in depth, the Athenians but eight. The same Athenian were eight in depth against the Siracusans. So that the depth of eight was much used among the Gracians. How be it I find not, that they called a file of eight by the name of Lochos. Cyrus the elder made his files of twelue men, and the leader thereof hee called *δυνάστης*, and *δυναστής*, and the file is selfe decas, which in signification albeit it importen ten, yet wee must retaine the word, as it is used, and not fly to the originall of the Etimologie, as I noted before vpon other occasion. But Alian maketh his file of sixteen. His reason followeth.

3 For whether they vse darts &c.] The file being sixteen in number, the souldiers therein every one having after-distance from other three foote, take vp in the whole depth forty eight foote, and being doubled to thirty two men, they take vp ninety six foote, which amounteth to thirty two yards. That bowes and slings easilie out reache this distance, appeareth by Vegetius, before by mee alleaged, who saith, they stroke their marke six hundred foote of, which in our account by scores, is ten score. Of the darte a man may rather doubt, which notwithstanding with an exercised arme is sent much further, then thirty two yards. Lipsius writeth, that a darte was usually cast foure hundred foote, which amounteth to a hundred thirty three yarde, or as wee in shooting measure it, six score and odde. The reason why Alian placed the light armed behinde wee shall see heere after in fit place.

The order and parts of a file or Decury.

CHAP. V.

* THE best man of every file is the first in place, and hee, that leadeth the file, who is also called the *file-leader*, the *Commaunder*, & the *fore-stander*. The last man of the file is called the *Rear-Commaunder*, or *bringer-up*. The whole file it self is termed ^a a *verse*, and ^b a *Decany*, and of some ^c an *Enomoty*. Yet there are, that hold *Enomotia* for the fowerth parte of a file, and the Commaunder of an *Enomoty* they call *Enomotarcha*, and two *Enomoties* they take for a *Dimery*, & name the Commaunder thereof *Dimerites*, so that the half file is said to bee a *Dimery*, ^d and the Commaunder *Dimerites*. This man is the last of the file. Hee, that standeth next behinde the *file-leader*, is named a *follower*, and the next after him a *Leader*, and the next after him againe a *follower*. So that the whole file consisteth of *Leaders*, & *followers* placed successiuelly one after another. * It behoueth the *file-leader* to bee more sufficient, then the rest of the file, and next him the *Leader* of the half-file, or *bringer-up*. They define a file to bee a *Rowe* of followers placed according to their worth successiuelly after a *file-leader*.

Notes.

1 THE best man of every file.] Why the *file-leader* ought to bee the best man of the file many reasons may bee given first because hee commaundeth the rest. And as in all other things hee that is to rule, and governe another, ought to haue more knowledge, then hee that is commaunded, and governed, so is it in matter of warre. Further, as his skill, so his valour, ought to bee most: that his example may incourage and incite the rest. Which is the cause, that other commaunders also are placed in front, and in the eye of the souldiers that their valour & forwardnes may breed an honest emulation in the souldiers to doe, as they doe. Besides, the first place is most besecming him, that best deserueth, and the more valiant a man is, the more hee desireth to shewe it in the face of the enemy, thereby to winne himself honor, and reputation. Furthermore, hee may doe best service in the front, by entring into the enemies battaile, and making way for the rest. Not unlike a sword, whose edge maketh speedy passage into the thing, it cutteth, and draweth after it the rest of the iron, bee it never so blunt. In the front, the ranke of the file leaders giue the push to gaine the field. Which reason I thinke lead^a *Gorgidas* the first institutor of the Theban Hieros Lochos, not to make an entire troupe thereof apart, but to place it man by man in the first ranke of the Phalange. Lastly the sight of the file leaders, being the choice of the armie, both for stature, and resolution (for ^b so *Ælian* would haue them) ^c breeds a terrour in the minde of the enemy. Who, seeing such gallants in the front, haue cause to imagine that the rest of the armie, which they see not, is like to those they see. And, being never so valiant, they had rather haue to doe with weake, and releming then stout, and resolute aduersaries. As at the battaile of Cannæ ^d Annibal answered one, that brought him newes, that the Consul had commaunded the horse men to alight, and fight on foote, how much rather would I, quoth hee, hee had delivered them bound into my hands. I haue heard many hold opinion, that the manner of the Grecians, to bring their best men first to fight, is contra-

ry

^a Plutarch in *Periplus*.

^b *Ælian* cap. 12.
^c *Leo* cap. 4 §. 73

^d *Liv.* de *decad.* 3 §. 11

ry to the institution of the Romans, who held the Triarij (theire eldest, and best souldiers) in the rear, and brought them not to ioyne, till both the Hastati, and Principes were beaten, or retired. But if wee consider the diuersity of both theire embattailings, wee shall see noe great difference, or as lest wee shall see, that the reason of placing their best men was not much different. The Gracians in framing theire foure-fold Phalange made in length an even front of a 1024. files. The files were 16. deepe. and the best men therefore in front, because being placed in the midst, or in the reare, there would haue beene no use of theire valour, and the Phalange might haue beene broken, before it had come to theire turnes to fight. The Romans contrary-wise, in ordering a Legion, made many maniples, and gaue the front to the Hastati, the middest to the Principes, the reare to the Triarij. Nowe the Triarij being ordered in the Reare, might at the beginning bee brought to fight in Front, if need were; being noe need, they kept theire place, till their Generalls found it fit to call vpon them. So then this is the difference. The File-leaders of the Gracians had the Front, because otherwise in so deep a body, as the Phalange was, they could not haue come to fight: The Triarij might alwayes haue beene imployed in Front, in flanke, or in the reare, as pleased the Generall. And that the Romans also in theire fewe all Maniples placed theire best men in Front, I cannot doubt. There stood the Centurions, which were the leaders of the Maniples, and in reason were to bee seconded with the best men vnder theire command. ^a C. Crassinus may serue for an example whose being noe Centurion, but an Evocate, in the battaile of Pharsaly betwixt Caesar & Pompey, bidde his Manipulers (they were of the Maniple, which hee once commanded) to followe him, and said hee would make his Generall giue him thanks aliuie, or dead. Yet must I confesse, that the front was not the proper place of the Evocates. But hee chose the front, and held it a place worthy of his valour. It is said of ^b Catiline that, when hee fought with C. Antonius, hee placed in the front of his army, all the chosen Centurions, and Evocates, and besides of common souldiers such, as were best armed. ^c Livy speaking of a fight betwixt the Romans, and the Latines, and describing the forme of the Roman battaile, after hee had limited the place of the Hastati, & Principes, writeth thus of the Triarij. After the ensignes (hee meaneth the Standards of the Legions) not the Ensignes of Maniples, were ten other Maniples; whereof every one had three Ensignes. The first Ensigneled the Triarij, oulde souldiers of tryed valor, the next the Rorarij, not soe well esteemed for strength in either age, or deeds, the third the Accensi, a troupe of lest trust, which was the cause, that they were cast in the reare. The Accensi were put in the reare, because there was noe great opinion of theire valor; the Triarij had the front, because they were oulde souldiers, and had beene sufficiently tryed. Soe then in diuiding of theire armie into small bodies, or battailions, the Romans differed from the Gracians: in placing the best men of theire maniples in front, they observed the same manner, that the Gracians did in placing theire file-leaders in the first ranke of the Phalange.

² A verse] I have translated Richos a verse. The more vsuall signification is a rowe of any thing placed orderly. ^a Soe Xenophon applieth it to trees, which were planted orderly one after another; and ^c Eustathius to the standing of dauncers one after another in depth even as our souldiers are placed one after another in file. ^d Iulius Pollux also acknowledged, that there were files, and ranks in Choro, that is in daunces vpon the stage. ^e But Suidas saith it was commonly taken for a line, which was read from the left to right hand. And to say the truth a verse, as wee read at this day, and as they read, when Ælian wrote this treatise, rather resembleth a ranke then a file; because in a ranke men stand side to side, as words doe being placed in a line. Yet because the word is received by use in that other sence, wee must like-wise admitte the same.

D 4

3 Adecury]

^a Caesar de bell. ciuili lib. 3.

^b Salust. de catil. iur. Catilinae.

^c Livy de decad. lib. 2. pag. 214. A

^d Xenop. in Oec. conom. 830. C. ^e Eustat. in Iliad. Iul. Pollux. lib. 4. cap. 26.

^f Suidas. in uerbo. 56205.

3 A decury] This in Greeke *Alian* calleth Decania, a word, which in this sence I find in no other Author, then in him, and in *Suidas*. *Xenophon* calleth it Decas: for doeth *Prbicus* and *Arrian*, and likewise *Hefychius*. *Leo* calleth it decarchian and Akian.

4 An Enomotie] The word cometh from *omnyni* to sweare, not of *omos* a shoulder, as *Robertellus*, and *Patricius* imagine; of whom the first translateth it in latine *Interutro*, the other in Italian *Spalaggione*, as it were a backing; Upon this conceite, I thinke, because in a file the whole number standeth one at the backe of another. *Suidas* saith: Enomotia is a body militarie amongst the Lacedemonians of 32 men, and is soe called, because they take theire othe together, not to forsake

the place assigned them in battaile. With whom agreeth the great *Etymologicon*; and *Hefychius* likewise; who termeth it a body militarie, that taketh an othe and sweareth by the sacrifice, which is offered at such time, as they goe into the field. And surely you shall not finde the word Enomotia applied to other souldiers, then the Lacedemonians, or else to them, that the Lacedemonians commanded: untill it was afterward taken up by the Macedonians. And *Julius Pollux* expressely noteth, that

*Moir*a, and Enomotia, are proper appellations of the Lacedemonians, given to certaine of theire militarie bodies. Albeit both the text bee corrupted in *Pollux*, having *Eunomotia* for Enomotia, & the interpreter hath worse translated it, redring Enomotia, militarie discipline, & *Moir*a a duty. As the *Lochos* is great, or little, so is the Enomotia, The Lacedemonian Enomotia was 32 men, the *Lochos* being 512. but the file of *Alian* being 16. and the Enomotie noe more, then the fourth part of a file the Enomotie must containe noe more then foure men. One of euery of these foure must bee a commander; who is called Enomotarcha, or the commander of that Enomotie. So that in the whole file, consisting of 16. there ought to bee foure Enomotarchas. Where they should stand in the file, is a question. *Patricius* maketh the file-leader the first Enomotarcha, the first man, the second, the ninth man, the third, & the 13 man the fourth; excluding the bringer vp, whom notwithstanding hee acknowledgeth to bee the second man of the file, and in dignitie next to the file-leader. I am of another opinion; and yet allowe the places of the first, fift, and ninth, but thinke the bringer-up

ought to bee the last Enomotarcha: *Arrian* confirmeth my opinion: who writeth thus: Alexander returning to Babilon, found *Prucestes* newly come out of Persia, bringing with him 20000. Persians. Then commending the Persians for theire obedience in all things to *Prucestes*, and *Prucestes* for his care, and diligence, in ordering them, hee reparted them into bands according to the Macedonian manner. Over every file hee appointed a Macedonian file-leader to command, and next a Macedonian dimærite, and a Decastater, so called of the paye hee had, which was lesse then *Dimærites*, and more then the common souldiers; then twelue Persians, and last of all the file a Macedonian, who also was a Decastater. So that in the whole file there were foure Macedonians, three, whose pay was more, then the common souldiers, and a file-leader the fourth, and more over 12. Persians. So *Arrian*. Out of which wordes wee may learne first the number of the Macedonian file, which consisted of 12. Persians, and 4. Macedonians, in all 16. the number, that *Alian* requireth in his file. Next, that the Enomotarchs, or commanders of the foure parts of the file, were likewise 4. Lastly that the bringer-up was one of the foure by expresse words of *Arrian*, which is contrarie to the opinion of *Patricius*, and whereas *Arrian* termeth the third Enomotarch, Decastateros of the pay, hee receiued, it is to bee understood, that *Stater* was a piece of coine, of the weight of foure dragmes: of Athens whereof the Enomotarch

a Xenop. Cyrop.
b Etymologicon
magn. in strat.
c Arrian. lib. 7.
1. c. 4. C.
d Leo cap. 4. §.
68. 69.

Patricius paralle.
milit. part. 14. 173
& part 2. 154.
e Suidas in Eno-
motia.

f Etymol. mag-
n. in Enomotia
g Hefych. in Eno-
motia.

h Iul. Pollux lib.
1. cap. 10.

i Arrian. 7. 16. 42.

Enomotarch had ten by the moneth. The dragme was of value seven pence sterling, and the *Stater*, coneyning foure dragmes, two shillings and foure pence sterling; and ten of them were valued at twenty three shillings and foure pence. Which was the pay of the second Enomotarch, and of the bringer-up, as *Arrian* affirmeth.

5 And the Commaunder *Dimærites*] About the *Dimerite* *Arrian*, and *Ælian*, differ. *Suidas* leaveth the matter uncertaine, saieing the *Dimerite* is commander of the half-file, but pointeth not out, which is hee. *Arrian* distinguisheth the *Dimerite* from the bringer-up, and giveth a greater pay to the *Dimerite*, then to the bringer-up. The bringer-up, he saith, was noe more then Decastateros, where as the *Dimerite* had a greater pay. But *Alian* twice in this chapter affirmeth, that the bringer-up was the *Dimerite*, and addeth hee ought to bee the second man of worth in the file. And that the place of the reare is not much inferior to the front, *Cyrus* teacheth his bringers-up in *Xenophon* in these words; You haue a place saith hee no lesse honorable, then they, that stand in front. For being in the reare, and seeing & encouraging them, that behaue themselues valiantly, you make them more valiant, and the remisse and backward you incite, & spur on, likewise to doe as well, as the rest. *Leo* appointeth two Officers to a file, the file-leader, and the bringer-up, & so maketh the bringer-up the second person of the file. The reare being then the second place of the file, I conceiue no reason, why, as the file-leader commandeth the one half of the file, so the bringer-up should not bee the *Dimerite*, and command the other; and I rather assent to *Ælian*, that of purpose describeth the particulars of this arte, as hee findeth them set downe in the auncient Tactics, then to *Arrian*, that, writing the historie of the deeds of Alexander, stumbleth by chance upon these things not greatly incident to his narration. Yet may there bee a resonable construction of both their meanings, if wee consider the severall respects of the offices of these Enomotarchs. For the middlemost Enomotarch may bee termed the *Dimerite* in regard he standeth in the head of the second half-file, and in doubling the front and some other motions leadeh it: the bringer-up because hee absolutly governeth it, and seeth that directions, given by higher officers, bee executed.

6 It behoveth that the file-leader bee more sufficient] The file-leader and bringers-up ought to bee the most sufficient, because they haue the whole government of the file, the one in the front, the other in the reare. The rest are under them, and to bee called by the names of leaders, and followers. But yet is there a further disposition of the file, which, as I finde it in *Leo*, I will sett downe. His words sound thus: Over the other sixteen you are to appoint a file-leader (as hee is termed) resolute, and fitt for service, and eight of these sixteen, that shall bee found fittest, you shall place in the front, and reare, of the file, foure in the front, namely in the first, second, third, and fourth place, other foure in the reare, in the sixteenth, fifteenth, fourteenth, and thirteenth place, that the front and reare may be strengthened with foure men a piece. The weaker are to bee placed in the midst of the file. This counsell, or rather precept, of *Leo* hath this reason. The front, and the reare, are the principall places the enemy commonly giveth upon. The front wee alwaies turne against the enemy, if we can. The reare the enemy seeketh to attache, and by it to distresse vs, if hee can. The flanks for the most part are secured by the horse, and light armed. For *Leo* placeth the light armed, and horse in the flanks. Soe these two places, being most subiect to the violence of the enemy, require extraordinarie care, and assurance. As for the weakest, which are in the midst, they neuer come to strike stroke, but after the front, and reare, are broken. In another place hee writeth to this effect: your Contubernies (the souldiers that cabin together) you shall order according to five men, or to ten, or to foure,

or

a Xenop. Cyrop.
lib. 1. §. 1. D.

b Leo. cap. 4. §.
71. 72.

c Leo. ca. 4. §. 63.

d Leo. ca. 4. §. 74.

or to eight, or to sixteen, as you shall find most convenient, that being bound one to another with mutuall acquaintance, they may fight one for another in battaile and bee more valiant against the enemy. But you shall doe more wisely, if when you are to joyne, you place brothers by brothers, & friends by friends. For when hee, that fighteth, hath an entierly beloved friend standing next behind him, hee must of necessity hazard himself with more egerneesse for his friends sake. And the other being ashamed not to requite one, that sustaines such danger in his behalfe, will hardly bee brought to forsake his friend so well deseruing, and first betake himselfe to his feete. *The same is the advise of Onosander, and was much practised in auncient time. The Lochos Hieros, or Holy-band, of the Thebans (whereof I spake before) consisted all of friends, that had bound themselves one to another in friendship. With this Holy-band Pelopidas gaue the first disgracefull overthrow to the Lacedaemonians, that ever they had. Of this band Plutarch writeth, that it was never beaten vntill the battaile of Charonaea, when Philip the father of Alexander vanquisht the Athenian, and Theban forces both together.* After which battaile Philip surueying the dead bodies, and comming to the place, where these three hundred lay, all close mingled one with another, and strooken through with the Macedonian pikes, hee wondred greatly, and hearing that it was the band of louers, and beloued, wept, and said, evilly may they perish, that suspect any filthines in deede, or suffering, to haue been practised amongst such men. *Cyrus the elder had his Homotimos nourished up together, and Alexander his Hetairos, whose extraordinarie service appeared in all their battailes. Diodorus Siculus writeth of Sesoosis the Egyptian King to this effect: at the birth of Sesoosis his father did a magnificent and royall deed. For gathering together all the children of Egypt, that were borne the same day, and setting over them some to nourish and governe them, hee gaue the same education, and institution, to them all, conceiving that they, that were brought vp together, & partakers of the same liberty, would become the best affected, and most assured fellow helpers in warre. This was the iudgement of Myris, the father of Sesoosis, King of Egypt, in providing assured assistance to his sonne for the conquering of the whole world, which by certeine blinde prophecies was promised him. Now what little trust there is to bee given to men, that are not acquainted one with another, Pompey that great Captaine of the Romans sheweth in his epistle to Domitius: For men, saith hee, are not quickly to be assembl'd hether by musters, and if wee had them, you are not ignorant how much they may bee relyed vpon, being vnacquainted to fight against ould Legions. Tet hath Leo another mixture in his files. For hee would haue the ould, and new souldiers put together in one file. Least saith hee, the ould being by themselves alone, proue weake, and of small force, and the yong disorderly, having litle experience. For the one, albeit ould, yet are well acquainted with service, the other albeit young, and valiant, yet are vnskillfull.*

For the Enomoties, dimerie, and file, see the figure.

Ioyning of Files.

CHAP. VI.

Ioyning of Files, is when one file is layed flank-wise to another, the Leader of the second file to the Leader of the first, and the follower of the second File-leader to the follower of the first, and so the rest. Every man that ranketh

is called *Parastates*, as for example the *Leader* of the second file, to the *Leader* of the first, and so their next followers, and the rest. As often then, as the second file, the third, the fourth, and so the rest are layd flank-wise to the first, it is named *Ioyning of files*.

Notes.

I *Oyning of files* is] A file of it self will worke litle effect against an enemy. For what can a man alone in front doe? Cyrus in ^a *Xenophon* wisheth, that, where as the Egyptians stood a hundred in depth, they had beene in depth a thousand, for soe, saith hee, wee should haue the fewer hands to fight against. The ranke bringeth the multitude of hands to fight. And it is held, that the more hands are with conueniency brought to fight, the more is his advantage, that bringeth them. This is done by ioyning files together, out of which ioyning, ranks spring, and ranks the more they increase, and extend themselves in length, the more hands are ready to encounter the enemy. Now, as it was said in the former chapter, that files consisted of leaders, and followers, from the first to the last, so is it in this chapter said, that ranks consist of side men from one end of the length of the Phalange to the other: Fewe, or many men, placed side to side in a right line make a ranke; as in two, or three files ioyned together, there are sixteen ranks of two, or three men in a ranke. And the two or three file-leaders make the first ranke, their followers the next, and soe the rest vntill you come to the sixteenth. The like falleth out in more files. ^b *Vrbicius* saith, that the file-leaders make the front (as they terme it) of the Phalange, which they call also the first ranke. And further, hee saith, they, that runne in an even line betwixt the two wings, the right, and the left, are said to be *Parastatai*, or sidemen. Likewise: the last ranke is called *Oura*, or the reare, and the commander *Ouragos*, the bringer-up. So *Vrbicius* agreeing with Ælian. Now, out of these two chapters, is a cleare distinction of the names of souldiers, that by reason of their posture, or place, in battaile make the diuersitie of files, and ranks. They, that make files are *Protoistatai*, first-standers, & *Epistatai*, after-standers; which are by vs commonly called Leaders, and followers. For these two saith Ælian make the file from the beginning to the end. *Parastatai* side-standers, or, as wee terme them, sidemen, make the ranks. And if you measure the length of the Phalange, you doe it by number of men in the ranke, if the depth by number of men in the file.

^a *Xenophon*, *Cyrop.*, lib. 6. 167.

^b *Etymol.*, magna in the word *στρατός*.

Of a Phalange, the length, and depth thereof: of rankinge, and stinge; the diuision of the Phalange into wings: the place of the armed foote, of the light-armed, and of the Horse.

CHAP. VII.

THE whole bodie of the multitude of files is termed a *Phalange*: whose length is the first ranke of file-leaders, and is named, the front, the face, the edge of the battaile, the ranke, the mouth, the Commanders, the fore-standers, & the head of the files.

As much of the *Phalange*, as stretcheth backward from the front to the reare, is named the depth: The bearing straight forth of side-men in length, whether

ther they bee *Leaders*, or *followers*, is *ranking*. And the standing of *Leaders* and *followers* directlie in a line in depth, is *filings*.

A *Phalange* is divided into two whole partes beginning at the middle section of the *front*, and houlding on cleane through to the vtermost parte of the depth; whereof the one half is called the *right wing*, and *head*, the other half the *left wing*, and *taile*. The two fold section it self, that divideth the length, hath the name of the *Navell*, and the *Mouth*. The *Light-armed* are placed after the *Phalange* of the *Armed*, and behind them the *Horse*. Yet if occasion require, both *light-armed*, and *Horse* are otherwise disposed, as after in this discourse will appeare.

Notes.

THE whole body of multitude of files is termed a *Phalange*. Joining of files makes ranks, and a sufficient number of files, and ranks together, make a body, which is called a *Phalange*. For that name is given to any entire body of an indifferent greatnesse, compacted, and united for fight. Hefychius deriveth the originall of the word *Apo tou pelas allelois inai*; from the standing of the souldiers in battaile neere one to another, *Suidas* in the same sence, albeit hee differ a litle in words, saith, the *Phalanges* are so called *apo tou pelasai anchi*, of approaching one neere to another. The great *Etymologicon* goeth yet a litle further, and saith, that *Phalanges* are as it were *Palanges para tou pelas kai eggys cinai*, as it were *Pelangs*. These are the conjectures about the originall of the name. Which of them is truest, is not greatly to the purpose. It is enough to understand, in what sence the word *Phalange* is commonly taken amongst *Tactick* writers, who, as I said, in a generall signification call any great body of armed gathered together, and united for fight, a *Phalange*. Soe^a *Caesar* nameth the battaile of the *Helvetians*, into which they cast themselves, when they fought against him, and likewise the battaile of *Ariovistus*, a *Phalange*. So speaketh^b *Xenophon* of the *Plæsum*, or square hollow battaile, into which the *Gracians*, that went with *Cyrus* the younger into *Persia*, fashioned themselves at their returne out of *Persia*. And the same^c *Xenophon* saith, the horse of the *Gracians*, when they were to encounter the *Persians*, ordered themselves foure in depth, in forme of a *Phalange*. And^d *Arrian*, that the *Persians* at the River *Granicus* were ordered in a long *Phalange*, and^e *Xenophon* againe discoursing how *Iphicrates* exercised his naue, when hee expected to fight with the *Lacedæmonians*, saith, hee sometimes lead in a wing (that is in a large depth) sometimes in forme of a *Phalange*, in a broad front. The first inventer of the *Phalange* is thought to bee *Pan* the generall of *Bacchus* his armie. *Polyenus* saith: *Pan* was the commaunder of *Bacchus* his armie. This man was the first that invented the order of a battaile, called it a *Phalange*, and parted it into the *Right*, and *left wing*. For which cause Poets saine, that *Pan* carrieth two hornes vpon his head. Besides hee was the first, that by slight, and cunning cast a feare vpon his enemies. For when *Bacchus*, incamping in a hollow forest, was advertised by his spies, that an infinite number of enemies were lodged one the further side, hee began to be afraide. But not *Pan*: who commanded the same night the armie of *Bacchus* to giue as great a shoute, as they could. The *Rocks* and hollownesse of the forest rendered it againe double to the enemy, & made shewe of a greater armie, then *Bacchus* had. Where with the enemy falling into a fearefull forthwith. In honour of this strategem wel saine, that *Eccho* is *Pans* lone: & the causelesse night-fears, which fall vpon Armies, were attributed to *Pan*.

So

So saire *Polyenus* about the inventer of the *Phalange*. The number of the *Phalange* is not alwayes one. It may consiste of ten thousand, twenty five thousand, or as many, as you list, ^a *Antigonus* the King of *Macedony* had his *Phalange* of ten thousand. ^b *Ptolomæus* King of *Ægypt*, of twenty five thousand. ^c The ten thousand *Gracians* that went with *Cyrus* into *Persia* are called a *Phalange*. What number the *Helvetians*, and *Ariovistus*, had in their *Phalange*, is not preciselie set downe by *Caesar*. ^d Tet it seemeth by *Caesar*, that the most parte of the fighting multitude of the *Helvetians* cast themselves into a *Phalange*; and those of *Ariovistus* likewise: But *Ælians* *Phalange* is restrained to a certeine number, as the next following Chapter will teache.

2 The length whereof The length of the *Phalange* is to bee accounted by the ranke not by the file. The file is but sixteen men deep. The ranke from the pointe of one wing to the pointe of the other conteyneth a thousand, and twenty four men in *Ælians* *Phalange*. So that the files being short in comparison of the ranks, it is reason, that the length of the *Phalange* bee measured according to the ranke, not to the file. ^e *Suidas* agreeth with *Ælians* saying, that the length of the *Phalange* is the first *Syntagma* (the first ranke) of file-leaders, which is ordered in a right line, stretching from one wing to another, and is called the face, and the mouth, and the front, & the edge, and the first-filing, and the first standers of the battaile. The next rowe, lying Parallel to this, is called the second ranke, and the third, the third ranke, and soe the rest. The length is termed in Greeke *Mecos*, to which is opposed the depth, which is named *Bathos*. Neither is there in true account any other dimensions in a *Phalange*, besides the length, and the depth, which are in this chapter mentioned by *Ælian*. Other names are given in Greeke writers sometimes, but they signifie either the one, or the other.

3 Is named the depth As the length runneth along by front from one wing to another, so the depth beareth backward from the front to the reare. The depth is properly called *Bathos*, as I said. ^f And *Bathera Phalanx*, is a deepe *Phalange*. ^g *Diod. Sicul.* 15. 8. And^h *Arrian* saith, *Alexander* ordered his *Phalange* es *Bathos*, in depth. Andⁱ *Polybius*, that the *Romans* made their battaile much shorter then before, but much deeper, *Bathyteran*. And as it is called *Bathos*, for the most part, so is it by ^j *Leo* called also *Pachos*. For the depth of a file is by him termed depth, or *Thicknes*, *Bathos* ctoi *Pachos*, in two severall chapters of his *Tacticks*; not in respect of the file it selfe, which is no more then a long line, as it were, and carrieth neither *Thicknes* nor breadth, but in respect of the *Phalange*, the depth whereof is measured by the file. And in the fourth, the twelfth, and fourteenth chapters hee termeth the depth of the *Phalange* it self (the *Thicknes*) *Pachos* alone with out adding *Bathos*; shewing thereby, that *Pachos* also signifieth the dimension of the *Phalange* from the front to the reare. But where some are of opinion, that *Platos*, breadth, ought to bee read in those places in stead of *Pachos*, *Thicknes*, they perswade mee not to bee of their mind. ^k For *Ælian* himself giveth an *Attenuation*, or *Thinning*, (which hee calleth *Liptysmos*) to the *Phalange*: and that cannot bee understood, unlesse there were in it a kind of *Thicknes* before. And to make it more plaine, hee saith, that this *Liptysmos* is, when the depth of the *Phalange* is gathered up and from sixteen men it becometh a lesse number. So that the *Thicknes* of the *Phalange* is the full sixteen, which is also the depth, and making of it *Thinner* is to lessen the depth. To a Place *Platos* is firstly attributed, a Place being onely superficies, which consisteth of longitude and latitude. So^l *Polise* speaking of a valley, wherein an ambush was layde to entrap *Alexander*, saith, the length stretched saire out, but the breadth, *Platos*, was narrowed to four longes. The name of *Platos* is likewise given to a place by ^m *Polybius*. But to say the truth

E truth

^a *Caesar* de bell. gall lib. 1.

^b *Xenoph.* de exp. Cyri. lib. 2. 106. B.

^c *Xenoph.* hist. grec. li. 3. 499. A.
^d *Arrian* lib. 1.

^e *Xenoph.* histor. grec. lib. 5. 84. A.

^f *Polyeb.* lib. 1. in Pan 3. 1.

^a *Polyb.* lib. 2. 150. A.

^b *Polyb.* lib. 2. 408. C.

^c *Polyen.* lib. 2. in Claudi.

^d *Caesar*, de bell. gall. lib. 1.

^e *Suidas* in *Mecchos*.

^f *Diod. Sicul.* 15. 8.

^g *Arrian* lib. 1. 3.

^h *Polyb.* lib. 1. 35.

ⁱ *Leo* cap. 4. §. 4.

^j *Leo* cap. 14. §. 108.

^k *Leo* cap. 7. §. 14.

^l *Leo* cap. 12. §. 40. 46.

^m *Polyen.* lib. 4. in *Alexand.* §. 22.

ⁿ *Polyb.* lib. 1. 3.

^o *Polyb.* lib. 1. 3.

a Leo ca. 7. §. 8.

truth Platos in a Phalange rather signifieth the length, then the depth, as appeareth by *Alian* after in the fourth and fourth chapter. And *Leo* calleth the front of the Phalange Platos, and when hee would have the front enlarged, or doubled, hee giveth this word of direction Plátynon prós tà amphótera mére, enlarge the front on both sides.

4 The right wing] That which in the English tongue is called a wing, is termed in Greeke Keras a horn. Wee in our warres of auncient time divided our armies into three parts, The vantgarde, the battaile, and the reare-warde: and, when wee came to fight, set them for the most parte in an even front, the battaile in the midst, on the right hand, the vant-garde, which was called the right-wing, on the left, the reare-warde which was called the left-wing. Properly enough for our embattailing. For the battaile is, as it were, the body, and the vant-garde, and reare-warde, are the wings, which in a manner sticke out from the body, and where by the body is supported: that, that wee call wings, the Gracians, and Romans called horns in the battaile. The word Keras signifieth a point bearing out from the height, or ends, of any thing. It is used for the toppe of Rocks, and for promontories, and such like; And in a Phalange it properly signifieth the two points (the right and the left) of the wings. The English wordewing I am faine to retaine, because it is familiar, and in use. *Alian* heere will have the wings to stretch out from the middle section to either point (the right and left) of the Phalange; under which appellation must fall to the right wing the whole space, that beginneth at the middle intervall, and runneth along to the corner of the battaile on the right hand, to the left, all that is comprehended betwixt the same space, and the left corner of the battaile.

b Onofander ex. 80 Leo, ca. 7. §. 10.

5 The two-fold section] In Greeke it is named Dichotomia: because it parteth, and divideth the Phalange into two even parts, beginning at the front, and stretching out to the reare. And *Alian* in the tenth chapter of this booke nameth it Apotome. But heere hee speaketh of no more intervalls, or partitions, of the Phalange, then of this one in the midst. I would thinke there should be more. *Onofander* saith: let there be certaine intervalls in your battaile, that if your enemy advance, your light-armed after they haue spent their missive weapons, and before the Phalanges joyne, may retire leasurely in the intervalls, and without disorder come behinde to the reare. For it is not safe for them in retiring to fetch a compasse about the whole armie, or to turne in againe on the outside of the wing. For the enemy, hasting to come to hands, would easily prevent, and intercept, them in the midst; so that they neither should be able to breake through the armed, already closed for fight, and falling vpon their owne weapons, they must needs disorder their owne people, every man after their other seeking to finde a way through them to escape the danger hee is in. Thus much *Onofander*; from whom wee may learne, both that their ought to be more sections in the Phalange, then one, and that the institution of them had this cheefe end, to receiue the light-armed in their spaces, after they had skirmished with the enemy, and were by them forced to retire. I may adde, that *Alian* placing the light-armed in the reare of the Phalange if you give but one section unto it, it will be as hard for them, to advance, and serue, before the front, as it will be to retreat after their service done. It seemeth, that *Leo* giveth three intervalls to the Phalange of the auncient Tactics. Hee saith: they opposed the bodies of the armed against the enemy, and divided them into foure parts, the right, and left, and the middle-right, and middle-left parte. Making so many parts, the parts must be distinguished (as I collect) by intervalls, which ought to be one after

after the first body of the right-wing, another after the second, which is the middle section, the third after the third. And this Third section is bounded with the fourth body, which maketh the point of the left-wing. For if the Phalange were whole, and entire, without more intervalls then one, how could there be foure parts? For esteeming them by Phalangarchies, without leaving spaces betweene, it could not be saide, there were but foure parts of the Phalange, considering, that as well the Merarchies, Chiliarchies, Pentecosiarchies, Syntagmataes, are parts of it, as the Phalangarchies. But being distinguished by partition of intervalls, the foure Phalangarchies become foure parts, namely the right, left, middle-right and middle-left: as *Leo* heere termeth them. The same *Leo* speaketh after more plainly, enioyning his generall to separate, and disioyne Diachorizein the whole number of his armie into foure parts. For, as *Choris* signifieth a part or severed, so *Diachorizo*, being derived from it, signifieth to put asunder, or sette a part. *Suidas* is yet a little more cleare. A Phalangarchie, saith he, is two Merarchies of foure thousand and ninty six men. This as some saye is the section, *Apotome*, of the wing, as other, it is a *Meros*. Of auncient time it was called *Strategia*, and the commander *Strategos*, but nowe hee is termed *Phalangarcha*. *Suidas* maketh the wing to haue a partition or section, and saith, some call a Phalangarchie by the name of this section. Before wee heard out of *Alian*, that the wing (right or left) did stretch out from the middle section to the outward most point of the battaile on either side. And as the middle section divideth the Phalange in two parts, which are called wings, so this section (spoken of by *Suidas*) being in the midst of the wing divided the wing into two parts. To call a Phalangarchie (which is a body consisting of foure thousand and ninty six men) a section, is, I confesse, an improper speech, but tolerable notwithstanding, considering that the whole foure-fold Phalange is composed of the foure Phalangarchies, and that the section of the right-wing beginneth at the left hand file, or inward point of the right hand Phalangarchie, and endeth at the right hand file of the second Phalangarchie. And wee are not to expect the same exactnesse of speech from souldiers, that is common to men skillfull in the liberall sciences. Souldiers, that professe action, haue their end, if they be understood of those, they commande. Artilles are contemned, that clothe not the precepts of their arts with elegant, fitt, and exact termes. Seeing then the beginning of the section of the wing is at the flanke of the first Phalangarchie on either side of the Phalange, wee may after a sort terme the Phalangarchie a section of the wing, because it boundeth the section. At least by this place of *Suidas* wee may gather, that there was an intervall in either wing, which in reason ought to be in the midst of the wing, and to lye betwixt the two Phalangarchies. For so many there are in one wing. *Polybius* telleth of *Philopamen*, that, fighting against *Machanidas* the Tyrant of Lacedemon, after hee had placed the light-armed, the Lanciers, and Ilyrians ioyntly in one front, hee added in the same right line the Phalange distinguished into bodies according to Merarchies and divided by severall distances. I translate *Speiredon* distinguished into bodies, because *Speira* signifieth a militarie body amongst the Gracians, and is by the Gracians, that wrote the Roman histories, used sometime for a Legion, and sometime for a Cohort. And it seemeth that *Speiredon* is heere by *Polybius* put in the same sence that *Eis Speiran* is by *Plutarch*: who mentioning the reformation touching affaires militarie; which the same *Philopamen* brought in amongst the Achaians, writeth thus: their manner and forme of embattailing was not usually parcelled out *Eis Speiran*, that is (as I interpret it) in severall bodies, but using a Phalange,

a Leo ca. 4. §. 25

b *Suidas* in the word Phalangarchie.c *Polyb.* lib. 1. §. 61. 1. D.d *Plut.* in *Philopamen*.

Phalange, which had neither protension of pikes, nor closing of targets in front (as the Macedonian manner is) they were easily foiled, and broken, by the enemy. The meaning of Plutarch is (as I conceive) that the Achaians in former times used to order their Phalange in a continued length without intervalls which Philopamen reformed, and taught them to make divisions by intervalls; And the practise of Philopamen is the best interpreter of his owne counsell to the Achaians. This practise Polybius setteth downe to bee the division of his Phalange Kata tele Ipeiredon en diastemasi into bodies distinguished by intervalls according to Merarchies. Polybius also, to shewe, what bodies they were, useth the word Tele, which I translate Merarchies, having my warrant out of ^a *Eliau*: who saith a Merarchie consisteth of two Chiliarchies, and containeth two thousand and forty eight men, and a hundred and twenty foure files; and addeth, that it is of some called a Telos, and the leader a Telarch. A man may doubt seeing Philopamen made an intervall betwixt every Merarchie, whether hee made seven divisions, or no: For in *Eliau's* Phalange there are eight Merarchies, betwixt every of which if a distance were, there must needs arise seven intervalls; To cleare this doubt wee must understand, that the Phalanges of the Gracians were not alwaies of the same number, as I noted before. *Eliau's*, and the Macedonian Phalange, consisted of sixteen thousand and odde. Antigonus had but ten thousand. Demetrius eleven thousand. Other had more, the Lacedaemonians lesse, and likewise the Gracians for the most part. And it seemeth, the Phalange of Philopamen was no more, then eight thousand, and odde, in which number there are but foure Merarchies. As *Eliau's* Phalange comprehending sixteen thousand and odde, wherein are foure Phalangarchies, hath likewise three divisions by Phalangarchies. And yet in this Phalange of Philopamen, if you account the file to haue but eight men (as the most Gracians used in their files to haue) these foure Merarchies will possess as much ground in front, as the Phalangarchies of *Eliau's* Phalange doe, the file being sixteen. Neither is it new to figure out the bodies greater, or lesse, according to the number of the Phalange. ^b *Leo* commandeth his Generall, when the number will not reach to sixteen thousand (the number of the old Phalange) to hould notwithstanding sixteen men in a file, and to divide his Phalange into foure equall parts by intervalls, excepting some few, which hee would haue reserved for other uses. To conclude *Eliau* him self seemeth to acknowledge more sections, then one, when in the tenth Chapter of this booke hee speaketh of the middle section mese apotome. For this word middle being a relatiue, can not bee understood with out two other at least, which are placed on either side. And all the figures, that I haue scene, of a fourefold Phalange allowe three sections, and no more, that is to saie, one in the midst, and the other two in the wings. What the distance and dimension of these sections ought to bee, I finde not set downe. But, if I might haue leaue to coniecture, I would thinke, they ought to bee large enough for a troupe of horse, framed wedge-wise, after the Macedonian manner, to passe through; the last ranke whereof being fifteen (as appeareth in the twenty chapter of this booke) and the horse placed in the reare of the light-armed it is needfull, if upon any occasion they were to bee drawn through to serue in the front, the distance of the section should bee sufficient to give them passage with out disorder. And I am the rather confirmed in this opinion, because I see the intervalls betwixt the Roman maniples so proportioned, that the Principes might passe through those of the Hastati, and the Triarii through those of the Principes. But I proportioned out the intervalls to the horse, not to the light-armed, for that the light-armed way bee divided into severall bodies without inconvenience, but any breaking of the horse-

^a *Eliau* before cap. 9.

^b *Leo* esp. 4. 5. 6. 6. 6. 6.

horse-wedge breedeth a confusion in the whole troupe. Yet where a troupe of horse may finde way, there may a Centurie, or Colours, of light-armed finde also way.

6 The light-armed are placed after] ^a The light-armed were diversly ^a Ælian cap. 31 placed, sometimes before the front of the Phalange, which kind of placing is afterward called Prataxis, sometimes on the wings, and it is called Hypotaxis, sometimes betwixt the files of the armed fronting in a right line with them, and it was called Entaxis, sometimes in the reare after the Phalange, which was called Epitaxis. All these are spoken of by Ælian heereafter in this booke. ^b There is another kinde ^b Ælian cap. 42 of placing the light-armed, when they are throwne into the midst of the battaile, being hollowed for that, and other purposes. Heereof Ælian likewise treateth in this booke heere-after. And albeit the most vsuall embattailing of them hath bene in the wings, yet the bestowing in the reare according to Alians minde hath also advantages. First it concealeth their number, which because they are shadowed with the pikes standing before, can hardly bee discerned. Then it is easie from the reare to drawe them to any place of service without disorder, bee it before, on the wings, or behinde the reare. Further, it will not bee easie for the enemies horse to charge them, the armed standing before for a sure defence. Lastly, from the reare they shall bee able at all times to annoy the enemy, before the battaile ioynes, as soone as the battaile ioynes, and all the time of fight. Neither doth this manner of embattailing want examples of the ould historie of the Gracians. ^c The embattailing of Cyrus the elders armie, in Xenophon, hath the light-armed ^c Xenop Cyrop. lib. 6. 167. B. in in the reare. I will set downe the effect of Cyrus words at large because they containe the ordering of an armie to fight according to the iudgement of Xenophon. Cyrus then being to trye a battaile with Cræsus thus directeth his Commanders: you, saith hee, Araspes take your place in the right wing, as you now doe, and you the other Myriarches, as you are accustomed. For when the fight is once a foote, noe Chariot may change horses; and command the Taxiarches, and file-leaders, to order their files every one divided in two parts Phalange-wise, that is each half fronting one with another in a right line. A file containeth foure an twenty men. Then saide one of the Myriarches, doe you thinke Sir, that wee shall bee able, in this order, to encounter so deep a Phalange, as the enemies? Cyrus answered, the Phalanges that are deeper, then may with their armes reach the enemy, are they fitt thinke you either to annoy the enemy, or profite their frindes? For my part I could wish those, that are ranged 100. in depth, to bee in depth a thousand. For so should wee haue the fewer to fight with all. The number, that I giue for the depth of the Phalange, I doubt not, but will entirely serue for vse, and maintaine a joynt fight in every part. The Darters I will place after the armed, and after the darters the Archers. For who will sett them in front, that confesse themselves vnable to maintaine a fight hand to hand? Howe then will they hold their grownde, if they bee sett before the armed? but being in the reare, some with darts, other with arrows, sent over the heads of the armed, will greatly endamage the enemy. And it is cleere, that wherewithall soever an enemy is endamaged, with the same a mans owne side is eased, and relieved. You therefore order your selues, as I haue appointed. As for the captaines of the Targetiers I will haue them, and their files, stand likewise next the armed in the Reare, and after them the Archers. And you the chiefe Commander of the Reare

enjoyne the other reare Commanders every man to haue an eye to those vnder him, that they doe their duties. And let them sharply threaten the negligent, and in case any man treasonably forsake his place, punish him with death. For it is the worke of Commanders both with word, and deed, to encourage those, they command, & to make the cowards more afraide of them, then of the enemy. This is your charge, but you Euphratas, that command over the Engines, see that the beasts, that drawe the Engines, and Turrets, followe the Phalange as neere, as may bee. And you Daouchus, that haue the charge of the baggage, come with your manye next after the Turrets, and let your Sericants seuerely punish them, that hast to much before or come to slowly after. And you Carduchus, that rule the wagons, wherein the women are, order them next the baggage. For all these, comming in the reare, will both breede an opinion of multitude, and giue vs meanes to lay an ambush, and will force the enemy, purposing to encompasse vs, to fetch a larger compasse; which the larger it is, soe much the weaker must hee be. And you Artabafus, and Artagerfas, each of you leade next after these, the 1000. foote you commande a piece. And you Phiranuchus, and Asiadatas, order the Chiliarchies of horse you commande not with the Phalange, but set them by themselves apart behind the wagons; and when you haue done it, repaire to vs with the rest of the commanders. But you are to bee in a readinesse, as if you were first to fight. And you the commanders of the Camel-riders place your selues after the wagons, and doe what Artagerfas shall bidde you. And you the Commanders of the Chariots, after lotts are cast, let him, whose lotte it is, range himself, and his 100. Chariots, before the Phalange; the other two hundred, one of them is to follow, the Phalange on the right side, wing-wise, the other on the left. So farre Cyrus. I haue rehearsed the words at large, principally to shewe that the light-armed in ancient time were placed sometimes behinde the Phalange; and yet further also, to represent the manner of embattailing an armie, which was then vsuall. For heere haue you set downe the place of the Myriarches, & of the other commanders, which was in front, then the place of the pikes, of the light-armed, of the reare commanders, of the Engines, of the baggage, of the wagons, wherein the women were, of the gards for the baggage, both horse, and foote, of the Camels, and of the Chariots. And albeit many of these particulars agree not with our manner at this day (for wee haue neither Engines, nor Camels, nor Chariots, nor slings, nor darts, nor arrowes) yet is the reason of warre alike in all, and in our placing also the fitnessse of seruice principally to bee respected. The place of the horse is heere omitted by^a Xenophon, which may be supplied out of the seuenth booke, where Chrysanthas Generall of the horse is saide to stand on the right wing of the Phalange with half the horse, Hytaspas on the left with the other half. But to returne to the placing of the light-armed, the same^b Xenophon testifieth, that it was the Egyptian manner to order their light-armed behinde, & that in the battaile betwixt Cyrus, and Crasus, the Egyptian archers, and darters, were with drawne swords compelled by the reare-commanders to shoote, and cast their darts.

^c Thrahybulus in his fight against the thirty Tyrants set his armed in front, and in the reare his targetiers, and darters, without armor, and those that cast stones. And it seemeth by the words of^d Thrahybulus to his owne side, that the Tyrants did the like; The Tyrants, saith hee, haue brought vs to a place, in which by reason of the steepnesse they must ascend, and can neither cast stone, nor dart, over the heads of their owne people, that are embattailed before. Where wee contrarywise, whether wee throwe jauelins, or darts, or stones, shall easily reache, & wound many

^a Xenoph. Cyrop. lib. 7. 172. C. & pag 175. C.

^b Xenoph. Cyrop. lib. 7. 179. B.

^c Xenoph. Hist. Graec. lib. 2. 472. D.

^d Xenoph. Hist. Graec. lib. 2. 473. C.

many of them. The stones and darts of the light-armed were to flye over the front of the battaile, and that could not bee unless the light-armed were placed behinde; I will adde one example onely out of Plutarch to shew the seruice of the light-armed in the reare.

^a Plutarch discouering of the battaile fought betwixt Sylla, and Archelaus, the Generall of Mithridates, at Cheronaa, hath thus: Afterwards the foote forces came to joyne, the Barbarians holding out, and charging their long pikes, and endeavouring with locking their targetts close together, to mainteine the order, and closenes of their Phalange: The Romans on the other side, casting away their darts, and drawing their swordes: putte by the enemies pikes in choler, to the end they might come quickly vp to them. For they espied, opposed against them in front 15000. of the enemies slaues, that were enfranchised by Proclamation of the Kinges generalls: & enrolled emongest the armed. And when the Roman Armed coulde hardly breake them, by reason of their depth, and fast knitting together; and of their bouldnes in daring (contrary to the nature of slaues) to abide the danger of the encounter, the arrowes, and darts cast in abundance from the Reare, made them shewe their backs, and fall in a route. Wee finde heere, that the light-armed from the reare effected that, which the Armed could not. These slaues endured the shooke; and could not bee broken by the armed, and yet were defeated with Arrowes, and darts, from the Reare: Nowe for the distance that should bee betwixt the bodies of the light-armed, and betwixt them, and the reare of the armed, Aelian saith nothing: I make noe doubt, but there ought to bee as great (if not greater) as in the sections of the armed. For wee must understand, that the sections, that served to sever the Phalangarchies one from another, must runne through the light-armed in depth to the reare. And by them are the Epixenagies to bee deuised a sunder, as the Phalangarchies are: with Epixenagies answer the Phalangarchies for number of files, albeit not in number of men. Likewise there ought to bee, a greater space in ranke, and file, then the armed had. For the handling of misliue weapons, require more liberty of place, then the managing of a pike, or sword. A dart can not bee sent for cible without running two, or three, steppes in the delivery of it. A sling being throwne, and circled about the head, before the stone, or bullet, can bee forced out to any purpose, will not suffer a neere stander by. In bowes, and arrowes, is the like reason, if they be vsed as they ought. Besides the light-armed, in their fight are tied to noe certainty of order, or ground, but fight dispersedly: Soe that the more ground they haue, the fitter they are for seruice. In which respect a large interuall crosswise betwixt the armed, and them, should serue to purpose: it having liberty for their motion forward, and backward, as occasion should require.

7. And behinde the the Horse:] I haue not read in any greek historye, that the horse-men in a sett battell, haue beene ranged behinde the light-armed. The vsuall manner was to place them in the wings. Soe did Alexander before he passed the River^c Granicus: soe^d at Issos, soe at^e Gangamela: Soe did^f Antigonus, against Eumenes, and Eumenes against Antigonus: Soe^g Ptolomeus against Demetrius, and Demetrius against Ptolomeus: and in briefe all the Macedonians, and the Gracians, before the Macedonians were accounted of for master of armes: unless some speciall cause moued an alteration. And as I shewed out of Xenophon, before all their times. ^h Cyrus albeit, hee set the light Armed in the reare, notwithstanding hee bestowed the horse in the wings: Alexander hauing passed the River Ister as long as hee marched in the corne lande, placed his horse behinde his Phalange, when hee entred the Champeigne, hee set them on the right wing: and lastly cast his Phalange in to a Pladium: and ordered his horse before. In the Corne land, they followed (for feare of an Ambushe) In the Champeigne they marched on the

^a Leonap. 4. 5. 6.
^b Arrian lib. 1. 23.
^c E. & 14 D.
^d Arrian lib. 2. 33.
^e Curt. lib. 3. 61.
^f Arrian lib. 3. 59.
^g Diod. Sicul. lib. 19. 65. 68.
^h Diod. Sicul. lib. 19. 71.
ⁱ Xenoph. Cyrop. lib. 7. 172. C. 80.
^j Arrian lib. 1. 46. D. 81.

right wing, because on the left, the Phalange was secured by the River, before the Plæsum, that being over-layde with the multitude of the enemy, they might have a sure retreat to the foote. ^a The same Alexander, when hee was to fight the Battaille of Issos with Darius, as long as hee was in the streights, marshalled his horse after his foote. But in marching forward, coming to open ground, when he might give full length to his Phalange, hee placed his horse on both the wings. But the reason of setting them behinde was in the streightnes of the place: and hee being incertaine how neere the enemy lay, was loathe to put them to hazard, before they had liberty of ground to order themselves, and might have assistance of the foote. For otherwise it was an ordinarie matter in marching (as it is the manner also at this day) to dispose the horse half behinde, and half before. I will content my self with one example. When ^b Agesilaus retourning out of Asia, passed through Thessalie, the Thessalians, allies of the Thebans, followed him, and sought to endamage his armie to their uttermost. Hee had before disposed his march into a Plæsum, with the horse half in front, and half behinde, now when the Thessalians ceased not to molest him, by falling vpon his reare, hee sent to the reare all the horse of the vantage, excepting those, that attended his person. Either party prepared them selues to fight. The Thessalians holding it not sure with horse alone to encounter armed foote: Turning about their faces, began leasurly to retire, and the Lacedæmonians slowly to followe, Agesilaus, perceaving the error of both, sent the best of his horse, that were about him, commanding them to signifie to the rest, that they together should goe, and charge the Thessalians with all speede, and giue noe respite to them, to turne their faces. The Thessalians contrary to their expectation being hottly charged, some fled, other some turned about towards the enemy, other some endeavouring to turne, were surprisid by their enemies, that by that time were come vp to their flankes. Nowe for the reason of Aliens placing the horse in the reare, I haue noe more to say, then, that from thence they might bee soone drawn to all places, front, flanke, or wheresoeuer the enemy is like to distresse vs. For it hath bene the forecast, of all generals to fashion their battails according to the figure the enemy hath before chosen. Examples are so plentifull, I neede not alleage many. Onely I will remember one latine story of placing horse in the reare. L. Lentulus, and L. Manlius Acidinus in Spaine being to fight with the Illergetes, and Ansetans, and other Spaniards, that had revolted from the Romans; in this very kinde of placing horse in the reare imitated, and gotte the advantage of, and defeated their enemies. ^c Livy hath the story, and writes thus in effect: The next day at the rising of the sonne the Spaniards being all armed, and set in order, shewed their battail about a mile from the Roman campe. The Ansetans were in the midst the Illergetes held the right winge, other obscure people of Spaine the left: Betwixt the wings, and the middle parte, they left broad interualls, to giue passage to their horse: (when time should bee) to send them through to charge. The Romans Embattailed after their wonted manner, Onely then imitated the enemy, in leaving open waies, for the horse betwixt the legions. Lentulus imagining that partye, and none other, should haue vse of their horse, that first possessed these interualls of the aduerser battaille, commaunded Cornelius the Tribune to giue direction to the horsemen, presently to charge through, the foote on both sides came to blowes, and the fight was hard, when the Roman horsemen passing through the Spaces, and falling vpon the midst of their enemies at once disordered the battaille of foote and shut vp the wayes against the Spanish horse, by which meanes, after noe long fight,

^a Arrian lib. 2.
38. 2.
^b Xenoph. lib. 3. 4.

^c Xenoph. hist.
græc. lib. 4. 5. 19.

^d Livy Comb. 3.
lib. 9. 32. A.
The like was
done by M. Valerius the Dictator
against the Hannibals.
Liv. deca. 1. lib. 19. 26. C.
And by L. Papius Cor against
the Hannibals. Liv.
viii. deca. 1. lib.
20. 38. C.
And by Sylla
against A. Chelonus
Procopius. lib. 2. 23. 3.

fight, the enemy was utterly defeated. Where Livy saith the Romans embattailed after their wonted manner, his meaning is they ordered them selues in Maniples, or Battalions, as we now terme them. (for that was their wont.) But when hee addeth, they imitated the enemy in leaving open waies for the horse, betwixt the legions. Wee must understand that a legion was thus embattailed: ^a First they divided their legion in to thirty Maniples, ten of the Hastati: ten of the Principes, and ten of the Triarii. The ten maniples of the Hastati, they set first in an even front, leaving soe much distance, or void ground betwixt every Maniple, as a Maniple is self tooke up in standing. At a reasonable space behinde, were the Principes placed in as many maniples: but soe that their maniples stood directly behinde the void spaces of the Hastati. And against the bodies of the hastati, they left likewise spaces in the Principes to the end, the Hastati being overlaid, might retire within those spaces: or else themselves might advance against the enemy, through the interualls of the Hastati. Lastly at a larger distance behinde these were the Triarii set, and divided with spaces betwixt every maniple, which spaces were great enough to receive the Principes, in case they retired also. Now the horse being ordered in the reare after the Triarii, if from thence, they had gon to charge the Enemies front, through the spaces of the Triarii, they must of necessity, haue fallen vpon the Maniples of the Principes whoe were set directly against the interualls or spaces.

To giue therefore free passage to their horse, the Roman Generals removed the maniples of the Principes from their ordinarie place, and bestowed them, in a right line, after the maniples of the Hastati, and made an open lane, (as it were) from the reare of their battell to the front. So that nothing hindered the horse, but they might freely fly vp to, and fall vpon the enemies front. And yet I take not Aliens meaning, to be, that the horse set in the reare, should during the time of the fight still remaine there. For soe would noe great service bee had of them. But hee placed them there rather to avoide confusion in ordering the foote. And that after their embatteling, they might bee led from thence to any place, front or flanke, or wheresoeuer they might yeeld most vse. For in the fifteenth and twentieth chapter, he would haue both light-armed, and horse soe placed, that they might answer all attempts of the enemy. And in his caution following, hee saith, if occasion require both horse and light-armed, may bee otherwise placed. That they were usually placed in the wings, I haue before shewed. The examples declare they were placed in the reare sometimes:

Of placing in the front there are also examples. ^b The Lacedæmonians at the battaille of Leuctra against the Thebans placed their horse before their Phalange, and tried their fortune with them, and were beaten, before the foote ioyned: ^c The Persians at the River Granicus, esteeming their horse to bee their chiefe strength, opposed them vpon the bancks against Alexander, that was to passe over, and embattailed their foote behinde the horse. And Alexander encountered them first with his horse, before his foote could get over: One example more I will adde to shewe the reason, why horse are sometimes placed before the front of the Phalange of foote. ^d Eumenes being to fight against Craterus and Neoptolemus, both greate generals, that had served under Alexander in all his wars, ordered the fight thus: Because hee vnderstood, that their Army consisted of twenty thousand foot, the most parte Macedonians renowned for their valour, and skill in fight (in whom they set their greatest trust) and of more then two thousand horse; and knewe his owne foote, albeit they were as many in number, yet all to bee ramasses of diuerse kinds of people, and that his owne horse were five thousand, with exceeded the enemy both in number, and valor, hee determined to hazard the battaille vpon his horse, before the two Phalanges of foote should come together: Advancing therefore with his horse farre before his

^a Livy deca. 2.
lib. 8. 23. C.

^b Xenoph. hist.
græc. lib. 6. 59. A.

^c Plutarch in vita
Alexand. Arrian
lib. 1. 14. 8.

^d Plutarch in vita
Eumenis. Diol.
Sicoul. lib. 20. 64. 6.

his foote, hee tooke the right wing himselfe, and gaue the left to two strangers, to Pharnabazus a Persian the sonne of Artabazus, and to Phenix a Tenedian: Craterus stood in the right wing of his owne horse, and placed Neoptolemus on the left. And seeing the enemies horse comming forward, with greate fury charged them first, and fought brauely. But his horse failing vnder him, hee fell to ground, and it being not knowne, whoe hee was by reason of the medly, and throng of those, that gaue backe, and fled, hee was trampled vnder foote, and ended his life after a strange manner. By his death the enemy tooke courage, and encompassing their aduersaries on all sides, made a great slaughter, and the right wing, after this manner, with might overpressed, and put to the worst, was faine to fly for succour to the Phalange of foote. In the left wing Neoptolemus stood directly against Eumenes, and the mutuall fight of eche bredde a greate emulation betwixt the generalls, and a fervent desire to come to hands. And being easely knowne, both by their horse, and other marks, they slewe one vpon another; and out of their single fight made away to a consequent victorie. And first they assailed one another with swords, and after fell into an vnlooked for, and wonderfull Monomachy, for being transported with anger, and mutuall hatred, quitting the raines of their bridles, with their left hands they eache seized, and tooke hold vpon the body of other, which hapening, and the horse continuing their careare, and springing from vnder them, they both fell to the ground, neither of them could wel arise by reason of the suddaine, & violent fall, and of the heaviness of their armor. Yet Eumenes got vp first, and prevented Neoptolemus, striking him on the ham. The wound was wide, and his strength of footing thereby failed, & he lay as one, that had noe vse of his legge, being not able to raise himselfe because of the hurt: notwithstanding, courage overcoming the weaknes of his body, hee lift vp himselfe vpon his knees, and hurt his aduersarie in the arme, and thighes, giving him three wounds. But none of the wounds were mortall, and they being yet warme, Eumenes with a second blowe hitting his necke, slewe Neoptolemus outright. Whilest these things were a doing therest of the horse fell together. Many were slaine on either side: some therefore falling, other being wounded, at the first the daunger was equall. Afterward, when the death of Neoptolemus was openly knowne, and that the other wing was put to flight, euery one shifted for himselfe, & made towards the Phalange of foote, as to a strong wall of defence to saue himselfe. This was the issue of the battaile. Wherin Eumenes, placing his horse before his foote, because hee held them his strength, and with the trieng the hazard of the day, shewed himselfe, both in counsell, and action, a greate generall. And Craterus on the contrary side, albeit highly esteemed amongst the Macedonians, as one, that had with great sufficiency served Alexander in all his warres, yet failed in iudgment, in that hee chose rather with his horse to encounter the stronger parte of his enemies forces, then with his Macedonian Phalange (which Eumenes himselfe feared) to trie his fortune. For as it is a pointe of forecast to knowe a mans owne advantage, and vse it: Soe it is noe lesse iudgement, to knowe wherein the enemy is stronger, and avoide yt. Eumenes did both; for hee vsed his owne horse, which were his strength, and brought to passe, that Craterus his Phalange did him noe good, in as much as they never came to fight. Craterus failed in both, in that hee neither brought his Phalange to fight, nor yet provided sufficientlie to encounter Eumenes horse; which exceeded his in valour, and number; so appeares both, that horse were placed before the front of the foote, and also the storie giues the reason, why they were placed there.

of

Of the number of the armed foote, of the light-armed, and of the Horse.

CHAP. VIII.

NOW are wee to lay out, what number the armed-foote, the light-armed, and the Horse ought to bee, and how particularly ordered, and how vpon occasion the Battaille may speedely be transformed into diuers shapes, & formes, and what discipline vsed for the motion of the severall parts of it. Wee cannot with any probabilitie set downe a precise number of forces to be levied. For as much as euery man is to proportion his levie according to the importance and qualitie of the warre in hand. This yet must not escape vs, that such a number is to bee chosen, as will fitt the diuers shapes, and transmutations of our Troopes. As if in case wee were to double, or to multiply, and manifoldly enlarge the length of the Phalange, or els to lessen, and drawe it vp into a narrower roome. For this cause choice is made of a number, that may be, reparted into half continually, till you come to one. Hence is it, that most Tacticall writers would haue a Phalange to consist of sixteen thousand, three hundred, eightie, and foure armed foote, and of half so many light-armed, and of half as many Horse, as light-armed. For 16384. may bee reparted continually into half, till you come to one. Therefore for prooffe, and Examples sake this number is admitted. And where wee haue allotted sixteen men to every file, the whole masse will arise to one thousand, twenty, and foure files.

Notes.

THE Chapter before spake of the parts and dimension, of the Phalange, and of the place of the armed, the horse, and light-armed. This treateth of the number that goeth to the Phalange. In choise of which number, Aelian saith consideration is not soe much to bee had of multitude, as of fitness for service. For such a number as cannot properly bee disposed of for fight, is rather meane of confusion, then of order without which no fight can be maintained: Therefore such a number is to bee chosen as will serue.

The diuers shapes, and transmutations of our Battaille. Every motion, in the battaile makes not a Transmutation, or diuersitie of shape. In turning of faced to the one hand or other there is noe other shape of the Phalange, then was at first: As a man turning his face any way, the same proportion of lineaments remaines that was in him before. Soe likewise in countermarch or wheeling after the Countermarche, or wheeling is done, every souldier if he keep his right distance, and remaine in file and ranke, hath the place hee had before: And soe noe transfiguration of length or of depth followeth. The motion then, that Aelian meane to make Transmutation, are Doublings: For whether you enlarge the length, or depth, of your Phalange; you straight intice another shape. A long fronted Phalange, and a Horse differ much in forme. If you will make of the ordinarie Phalange a horse, you are to double your files soe often, as your iudgement shal thinke convenient for the length of your horse. Then if from the Horse, you would returne it to the first forme, you are not to cease doubling Ranks; till you haue gained that forme: likewise if of your ordinarie Phalange, you would make a long fronted Phalange, your ranks are to bee doubled, and by continuing your doublinge, you may drawe out what length you will. And

contrary

contrarywise, by due doubling your files againe, you come to the first forme: How much you double your Ranks, See much you take away from the depth of your Phalange; as on the other side, doubling of your files, diminisheth the length. For the purpose, your Phalange is sixteen deep, double your Ranks; the depth hath but eight men; double it once more, and it hath but foure. Soe is the Phalange consisting of foure ranks, or euery ranke, hath foure thousand, and ninety six men in it: But the length is foure times as much as it was. In like manner doubling your files (which in Alians Phalange are a thousand, and twenty foure) the first doubling loseth five hundred, and twelue files and soe many remayne; the second seven hundred, and sixty eight, and two hundred fifty six remaine; and soe many men haue you in a ranke. But where the Phalange was but sixteen deepe, nowe in the second doubling it is become sixty foure deep: If you please to reduce it to the first forme, two doublings of ranks will suffice. Here wee must understand that doubling ranks, is not to make twice soe many as they were before, but to giue twice so many men, to euery ranke, as they had before by insertinge the even ranks into the odde, as the second into the first, and the fourth into the third, and the sixth into the fifth, and the eighth into the seventh, &c. The use of doubling I will shewe in my notes upon the twenty nine chapter of this booke. Alian therefore would haue his Phalange, of such a number as may bee reparted continually into halfe, till you come to one; which number hee saith to bee sixteen thousand three hundred, and eighty foure. And he ariseth out of the Multiplication of one by two soe still doubling the product, till you haue made up the full number, of sixteen thousand, three hundred, and eighty foure. And as the Multiplication by two begets this number, soe it being diuided by two continually, it may bee reduced at last to one: which is the thing, that Alian aymes at. For the numbers, that haue not equall diuision by half, leaue some supernumerary men in the Phalange: (which) in doubling will disorder both files, and Ranks: Every man acquainted with the lone countie militarie exercise at this day, knoweth, that when there is an uneven number of files, the odde file supernumerary brings a difference, and cannot bee doubled in the sort as the rest are: As in five, seven, nine, eleuen, severall bodies of files. Two, six, eight, ten, may well bee doubled, and become two, three, foure, five files a piece: but the fifth, seventh, ninth, eleventh, must bee severed from the rest of the doubled files; and serue to noe purpose, being not matcheable in depth with the rest after theire doubling. The same reason is of ranks: Now when Alian saith, that this number in a Phalange may bee diuided by half and reduced at last to one, wee must with all understand, that the file of the Phalange in such diuision, ought to be either of eight, or sixteen men a piece. For noe number under eight, except foure, or two (which suite not the depth, of a Phalange) nor betwixt eight, and sixteen, is diuisible by half, till you come to one. Noe nor above sixteen, except it bee produced out of the duplications of sixteen. A file of 12. comes nearest. And of that number was the file of Cyrus in Xenophon. Such a file notwithstanding by diuision of two states at three, and can descend noe lower. Ten was the old file of the Gracians, and it was called Decas. And albeit after ward upon better consideration they enlarged the number of the file to twelue, yet they retained the name of Decas still. But ten receiveth but one diuision, and goeth downe ward noe further then five. The uneven numbers under sixteen cannot bee diuided at all, Files by fraction. As thirteen, which if you will diuide by halfe, the quotient will bee six, and there remaineth an odde man over: of which number, if all the files of the Phalange should bee, you should haue a thousand, two hundred, and sixty, which will receiue noe more, then two doublings without a fraction. If then the files be above sixteen, and under thirty two, you cannot diuide them continually by half, but you must saile of the manner, that Alian speaks of. As for the number of sixteen thousand, three hundred, and eighty foure, albeit of it self it is diuisible by two till you come or descend

^a Xenop. Cyrop.
lib. 1. c. 13. &c.

to 1, yet we must not consider it apart, as an abstract by it selfe, but as it numbresth, and is applied to the Phalange. In which respect, it giueth a 1024 files of 16 deepe, which files will still hold out the doubling, till you come to one file.

3 A Phalange to consist of 16384. Alian (out of the most Tactick writers as he professeth) will haue the Phalange of sixteen thousand, three hundred, eighty and foure men. I haue noted before that a Phalange may be more, or lesse, than this number. But I take this to be the number of the Macedonian Phalange. Appian seems to testifie with me. thus he saith: Antiochus whole army consisted of 70000 men. ^a Appian in Syriac. 107. B. which the chiefe strength was the Phalange of Macedonians, containing 16000 men, ordered according to the forme, that Philip and Alexander had before vsed. He placed them in the middle, diuiding the 16000, into 10 equal parts, in euery of which parts was 50 men in front, and 32 in depth, and upon the flanks of euery part 22. the shew of the Phalange was like a wall, of the Elephants like turrets: hitherto Appian. I haue translated He Phalanx, He Macedonon according to the word, the Phalange of the Macedonians, where the right meaning is, the Macedonian Phalange. For it consisted not of Macedonians, but was armed, and ordered, after the Macedonian manner. For how was it possible for Antiochus to wage, and haue in his seruice 16000 Macedonians, being neuer himselfe King of Macedonia, and the King, that then was (namely Philip the sonne of Demetrius) was his enemy, and in league with the Romans? Besides Appian hath in expresse words: the Phalange was armed, and ordered, according to the institution of Philip and Alexander: whose manner Antiochus mought well retein, considering he was lineally descended from Seleucus, the successor of Alexander in the kingdome of Asiria: And Seleucus had bene in the seruice of Alexander in the whole conquest of Persia. ^b Liuy saith also, they were armed after the Macedonian manner. Whereby a man may inferre, they were no Macedonians: Hee speaking of the same battaille (which was the battell of Antiochus against L. Scipio) hath thus: The Kings army was mingled of sundry nations, and diuers with dissimilitude of armes and aides. There were 16000 foote armed after the manner of the Macedonians. They were called Phalangites. This was the middle of the battell, and in front diuided into 10 parts, which parts were distinguished by placing 2. Elephants in each intervall. The battell had 32 rancks in depth. It was the principall strength of the Kings forces, and both with the other shew, and also with the Elephants, which were eminent amongst the Armed only, brought with it great terror. Liuy saith the 16000 were armed after the Macedonian manner and were called Phalangites; Appian, that there were 16000 ordered, and distributed according to the ordinance of Philip and Alexander. Liuy, and Appian, both agree, that there was 10 parts, and euery part seuered with interualls, and had 32 men in depth, which is the Macedonian file once doubled. Liuy speaketh not of the number of the length of the Phalange. Appian saith plainly there were 50 in front, of euery of the 10 parts, which amounts to 500: for 10 times 50 makes 500. Now if you multiply the length of the Phalange which is 500 by the depth, which is 32, you haue the 16000: whereof Liuy and Appian speake. But yet resteth a doubt, in the difference betwixt both these authors, and Alian. Liuy, and Appian, both giuing but 16000: Alian 16384 to the Macedonian Phalange. For Liuy, we are not much to insist upon him, who being a Roman (we may probably coniecture) was halfe a stranger, in the Art Tacticke of the Gracians, and that, which he wrote, he had from others; perhaps no better skilled in the same Art than himselfe. Appian was a Gracian (for so those of Alexandria in Egypt accounted themselves, after Ptolomy the first had established that Crowne in his family) and as his historie sheweth, well acquainted with the order the Gracians held in embattle-
F lining

^b Liv. Decad.
4. lib. 7. 141. &c.

ling their armies, and therefore we may the better rely upon his authoritie. Who albeit hee first affirmed the Phalange was of the number of 16000, yet after in numbring the depth and length alone, he findeth 16000: and further expounding his own meaning he sheweth, there were more upon the flanks of the ten parts, into which the Phalange was diuided. His words import: That Antiochus diuided his Phalange into 10 equal parts, giuing every part in front 50 men, in depth 32; which being multipliea together, make up the 16000. He addeth; And in the flanke of every part he set 22. If the meaning be, he set 22 upon each flanke of every part, the parts being 10, and the flanks 20, the number will arise to 440, where Elian alloweth no more than 384. But if 22 were added to one of the flanks of each diuision, which also being collectiue taken are flanks in the plurall number, we shall come short and finde no more than 220. Yet whether sense of both you admit, it is plaine, that Appian attributeth more, than 16 thousand, to that Macedonian Phalange. And it may be, there is an error in the number of the 22, and that it ought to be written 32. For if Antiochus had giuen 32, as he gave 22, to one flanke of every part, and set 32 upon the uttermost flanks of every winge to strengthen them, of the 12 times 32 had arisen the iust number of Elians Phalange; which number is the fittest, for vse, and for diuision of the Phalange in all doublings. The armed foote then, according to Elian, ought to be, 16384. The light armed.

4 Halfe so many] The armed amongst the Græcians, were accounted the strength of the field, which was the cause their number was greatest. For you shall not finde in their battailes for the most part, that the light armed amounted to halfe the number of the armed: The fact of Cyrus sheweth what account he made of light armed: ^a Xenophon reporteth it thus: He led with him the Lydians, those whom he saw to take delight in Armes, horse, and chariots; and willingly doe, what they were commanded, he gaue armes to, of those whom he saw followed him against their wils, he gaue the horses to the Persians, that were his first companions in Armes. All that followed him vnarmed, he exercised to the sling, because he reckoned that weapon most seruile of all others. How much you increase the number of the light armed, so much you diminish the number of the armed, and by consequent so much weaken your field. ^b For the light cannot maintaine any stable fight, but in case of danger they are forced either to shew a faire paire of heels, or else retire to the armed for succor: Yet seruet they for many uses ioyned with the armed. And the proportiō that Elian setteth downe, namely to haue halfe as many of them, as there are armed, standeth to good reason, & vse. The Romans notwithstanding, were more sparing in their light armed, & allowed not above the 4th part of them, or litle more, to the armed. The Legion contained (saith ^c Polybius) 4200 footmen. Of these they chose 600 Triarians, 1200 hastati, 1200 Principes, (which come to 3000) and the rest Velites, which were 1200. And the Velites were the same in effect amongst the Romans, that the light armed amongst the Græcians, albeit their arming somewhat differed. Elian before shewed, that the Græcian light armed had no manner of defensive armour, but offensive only, as bowes, darts, or stones. ^d Polybius describeth the Armes of the Velites to be a Sword, a Parma, (which is a small Target,) and darts; the sword a spanish sword, the Target a litle round Target, a foote and a halfe (for so Calaubon correcteth Tripedon) in breadth; the darts in the steale 3 foote long, and a finger thicke; and the head almost a foote long. And ^e Livy mentioning the skirmishes, that fell out betwixt the horsemen of King Philip of Macedonia, and Sulpitius the Roman Consul, compareth both their Armies together, telling that either party had their light armed ioyned to their horse, and that comming to fight, the Romans had the better. So (saith he) neither the Kings horse, vnaccustomed to a stedfast fight, were able to match the Roman

^a Xenoph.
Cyrop. lib. 7.
188. B.

^b Xenoph.
Cyrop. lib. 6.
167. C.

^c Polyb. lib. 6.
468. B. C.

^d Polyb. lib. 6.
468. D.

^e Livy Decad.
4. lib. 1. pag 16.
B.

Roman horse, nor yet the foote skipping and leaping here and there, and almost halfe naked in their kinde of Armes, to be compared to the Roman Voles, hauing a Target, and a sword, and being armed sufficiently both to defend himselfe, and assaile his enemy. The number then of Elians light armed, ought to be 8192, and these being ranged behinde the armed 8 deepe (so they are fittest for seruice) will make 1024 files, as many as the armed did.

5 Halfe as many horse, as &c.] The horse are in number 4096, and proportioned to the foote (comprehending the light armed) as 1. to 6. The armed foote, and light armed together make 24576: the horse 4096. And this was ^a Alexanders proportion, when he moued first against Darius. For he had about 30000 foote, and 5000 horse, or not many more, as Diodorus saith. ^b Iustin giues him 32000 foote, 4500 horse. Yes this number held not alwaies amongst the Macedonians themselves; I meane Alexanders Captaines, that possessed his kingdomes after his death. The reason may be, that in Ciuill warres they made their leuies, not as they would, but as they could. ^c In the battle betwixt Eumenes, and Craterus, (I spake of that battell before) Craterus had 20000 foote, & 2000 horse; Eumenes had 20000 foote, & 5000 horse. Craterus the proportion of 1. to 10; Eumenes of 1. to 4. ^d Antigonus fighting against Eumenes in Cappadocia, had in his Army about 10000 foote, and 2000 horse; Eumenes had as before. Antigonus horse were to the foote, as 1. to 5. ^e The same Antigonus fighting against Alcetas, the brother of Perdicas, had in his Army 40000 foote, and more than 7000 horse; the proportion well nigh of 1. to 6; Alcetas had no more than 16000 foote, and 900 horse, failing much of Elians number. ^f Antigonus in his second battell against Eumenes, had 28000 footmen, and 800 horse, which is 1. to 3. and halfe; Eumenes had 35000 foote, and 6000 horse, very neare Elians proportion. Many other examples are to be read in Diodorus. But (as I said) these are Ramasses proceeding not of choise, but of necessity, which forced them to take such, as came to hand; as it alwaies falleth out in suddaine leuies. And it seemeth the number of horse (allowed to the foote by Elian) was King Philips proportion; considering Alexander used it after he receiued his armie from Philip, who by premeditation, and fore-choise, had gathered it together with intent to invade Persia. And yet I finde ^h that Philip himselfe, when he fought against the Athenians and Beotians at Cheronea, had more than 30000 foote, and 2000 horse; which is 1. to 15; and in diuers other fights differed from Elian in the number both of horse, and foote. But the question is not, what was done, but was best to be done. And the number that Elian speaketh of suites his Phalange best. For Philips device being to cast the horse into wedges of 64 horse a peece, and into 64 troups; the greatest ranke of each wedge being 15, will in the reare, equall the front of the armed, and of the light armed; not in number of files (for the files of the foote were 1024. and the greatest ranke of the horse, no more than 960) but in quantitie of place giuing to the horse, standing in their order of 6 foote betwixt man & man, the 128 cubits of surplussage toward the difference of the horses bodies, and toward the small spaces that are to be left, betwixt Troop, and Troope. ⁱ The Romans allowed a farre lesse rate of horse to the foote: In a Legion, according to Polybius his account, there were of Citizens 4200 foote, and 300 horse; of allies, and confederates 4200 foote, and 600 horse. In a Consular Army were 2 Legions of Citizens, and 2 of Allies, which came to 16800, a number not much differing from Elians Phalange of Foote. Of horse 600, Allies 1200; in all making 1800; which cometh much short of 4096, (the number Elian alloweth to his Phalange) and holdeth proportion of about 1. to 9. The reason of this difference, may appeare in the fact of ^k Eumenes; who not much trusting his forces of foote against the Macedonians (accounted the best souldiers

^a Diodor. Sic.
cul. lib. 17. 571.

^b Iustin. lib. 11.
639.

^c Diod. Sicul.
lib. 18. 644.

^d Diod. Sicul.
lib. 16. 649.

^e Diod. Sicul.
lib. 18. 651.

^f Diod. Sicul.
lib. 19. 653.

^g Diod. Sicul.
lib. 16. 570.

^h Diod. Sicul.
lib. 16. 555.

ⁱ Polyb. lib. 6.
472. C.

^k Diod. Sicul.
lib. 18. 643.

of that age.) prepared himselfe a sufficient number of Horse with them to make a counter-balance against the Macedonian foote. And it hath bene the manner of Generalls of ancient time, if they trusted their Foote-forces, to make the lesse account of Horse: if they distrusted them; to encrease the number of their horse.

The Romanes trusting to their foote, required the lesser number of horse. The Grecians had the greater number of horse, both for the cause before recited, and further because they had continuall warre with Barbarians, that placed their confidence in horse; as the Persians, and the inhabitants of the lesser Asia.

The names of the severall parts, and of the Commanders of the severall parts of the Phalange, and of the numbers under their commands.

CHAP. IX.

THe files are ordered into bodies, which haue euery one a proper name. For two files they call ¹ a *Dilochie* of *thirtie two men*, whose *Leader* is tearmed *Dilochita*. Foure files ² a *Tetrarchy*, and the *Leader* thereof *Tetrarcha* hauing charge ouer 64. men. Two *Tetrarchies* ³ a *Taxis* of 128. men, and 8. files, and the *Leader* thereof hath the name of *Taxiarcha*. Two *Taxies* goe to ⁴ a *Syntagma* of 16. files, and 256. men; and the *Leader* thereof is called *Syntagmatarcha*. A *Syntagma* of 256. men is called of some a *Xenagy*, and the *Commaunder* *Xenagos*. In euery *Syntagma* of 256. are five ⁵ superordinary men, viz: ⁶ *An Ensigne*, ⁷ *a Reare-commander*, ⁸ *a Trompeter*, ⁹ *a Sergeant*, and a ¹⁰ *Crier*. This *Syntagma* seemeth to haue ¹¹ a *Tetragonall* forme of 16. men in length, and 16. in depth. Two *Syntagmas* make ¹² a *Pentecostarchy* of 512. men, and 32. files, the *Leader* whereof is named *Pentecostarcha*. Two *Pentecostarchies* make ¹³ a *Chiliarchy* of 1024. men, and 64. files; and the *Leader* is called *Chiliarcha*. Two *Chiliarchies* are called ¹⁴ a *Merarchy* of 2048. men, and 128. files, whose *Leader* is named *Merarcha*. Of some this part is called a *Teles*, and the *Leader* thereof *Telarcha*. Two *Telarchies* make ¹⁵ a *Phalangarchy* of 4096. men, and 256. files, the *Commander* whereof is called *Phalangarcha*. Yet some call it a *Strategy*, and the *Commander* *Strategos*. Two *Phalangarchies* ¹⁶ a *Diphalangarchy* of 8192. men, and 512. files. There are that tearme this part ¹⁷ *Meros*, and it is one of the wings. Two *Diphalangarchies* make a four-fold *Phalange* consisting of 1024. files, and 16384. men. So haue you in the whole *Phalange* of armed foote two wings, foure *Phalangarchies*, eight *Merarchies*, sixteen *Chiliarchies*, thirtie two *Pentecostarchies*, sixtie foure *Syntagmatarchie*s, one hundred twentie eight *Taxiarchies*, two hundred fiftie six *Tetrarchies*, five hundred twelue *Dilochies*, one thousand twenty foure files.

Notes.

Hitherto haue bene shewed, the manner of arming, and leyning of Souldiers, filing, and the parts of files, ioyning of files, and ranking, the locall forme, and parts of a *Phalange*, the number of the armed, light-armed, and horse-men requisite to a *Phalange*. This Chapter containes, as it were, the matter, of which a *Phalange* is compounded; that is the severall bodies Militarie, ordred, and ioyned together, to make up the perfect forme of it. These bodies are many, and arise out of ioyning files by doubling
 still

still their number, and haue euery one a ſeueral Commander. The leaſt is two files ioyned together, which is called a Dilochy; And becauſe there are in Phalange 1024. files, there muſt alſo bee 512. Dilochies, which conſiſt of two files a peece. If you double this body of two files, and make thereof a body of ſoure files, it hath an other name, and is called a Tetrarchy, of which Tetrarchies there are 256. in a Phalange. Double againe theſe 4. files, and make 8, the body is called Taxis. And theſe eight files, being doubled bring out the Syntagma of 16. files; which is a ſquare number of men, 16. in the front, and 16. in the flanke. And ſo proceeding ſtill in 6. doublings more, you come at laſt to the ſourefold Phalange containing the number of 16384. men, and 1024. files. Now as in the Phalange there are 16. bodies out of theſe doublings, the Dilochy being the firſt, and the ſourefold Phalange the laſt: So doth Ælian, appoint for euery body a Commander, who albei they ſeuerally command, each his owne troupe, yet are they ſubordinately one vnder another, the leſſer vnder the greater, till at laſt the ſoueraignty of the command reſt in the General of the Army. ^a The Dilochies are directed by the Tetrarches, the Tetrarches by the Taxiarches, the Taxiarches by the Syntagmarches, the Syntagmarches by the Pentecoſtarches, and they by the Chiliarchs, ouer whom are Merarches, and ouer the Merarches the Phalangarches, and ouer them the Commanders of the winges, or Diphalangarches, and the ſoueraigne of the Armie or General is the higheſt, and laſt. The number of theſe Commanders a man would think were to no great purpoſe being in all (the 2. Diphalangarchies therein comprized) 1022, beſides the file Leaders, which ſtanding in the heades of their files, amount but to two men more; that is to 1024. For ſo many (as I haue ſaid) are the files of the Phalange. But if the conueniency be obſerued, it will not ſeeme impertinent. ^b For all the Leaders being in front, (therefore are they called Leaders, becauſe they precede, and the reſt follow,) it makes both a gallant ſhew, and that rancke being as it were, the edge of our battaile, not only ſerues to hew a ſunder, and rent a peece the forces of our enemy; But alſo ſtandeth as an aſſured bulwarke of defence before the reſt of the Armie, that followeth. And it is well noted by ^c Leo, that the multitude of Commanders (in orderly diuiſions) both ſignifies, that there are many worthy and valiant men in the armie: And is a meanes to keep the Souldiers in greater obedience, and to giue vndoubted effect to all directions. Of what qualitie and diſpoſition, theſe Leaders ought to be, you may ſee in the ^d fourth Chapter of Leos Tactics. Onely I will adde, that as they are higher in dignity, ſo ought they in vertue and valour exceede theſe, that are vnder their command. ^e Leo cap. 4.

^a A Dilochy] Conſiſts of two files; ſo ſignifies the word Dilochia: and the Lea-Dilochia der is called a Dilochite.

² A Tetrarchy] Of ſoure files; and the Leader is called a Tetrach, one that hath the command of ſoure files. And here I muſt once more admoniſh, that in the words of diuers ſignification, we muſt not weigh, what is the proper ſignification, but how they are uſed in this Art, and booke.

For the word Tetrarch ſignifieth ſometimes a King: as Helychius hath: and ^d Deiotarus in Tully is called a Tetrarch, and ^e Herode in the Goſpell; who both are commonly knowne for Kings. Theſſaly likewiſe was diuided into 4. Principalities, Theſſaliotis, Pthiotis, Pelasgiotis, and Aſtiotis; whereof euery one was named a Tetrarchy. Onely the difference is, that a Tetrarch being a King, or a Gouverneur, ſignifies him, that hath the gouernment of the fourth part of the land, (for a Tetrarchy is the gouernment of the fourth part) But a Tetrarchy in Ælian ſignifies a body military conſiſting of ſoure parts (4. files) and the Tetrarch commands not ouer one alone, but ouer all the 4. parts.

³ A Taxis] As the word Tetrarchy is diuerſly taken, ſo is Taxis likewiſe. For ſometimes it imports Order in a generall ſignification, as I noted before: Sometimes the

^a Xenoph. Cyroped. lib. 8. 203. A.

^b Xenoph. Cyroped. lib. 8. C.

^c Leo cap. 4.

^d Leo cap. 4.

^d Cicero in orat. pro Deſtaro. e Luc.

f Polyb lib. 3.
225. B. & lib.
11. 6:9 E.
g Xenoph. de
exped. lib. 4.
325 B. ex Cy-
rop lib. 8.
202. C.
h Arrian lib. 2.
25 E.
h Polyb. lib. 12.
666 B.
i Xenoph. Cy-
rop. lib. 2.
41 D.
k Polyb. lib.
3. § 10 in d; hi-
crat.

order of a battaile: sometimes a company of any kinde of Souldiers, foote, or horse: as Taxis Pelastarum, Taxis Equitum; Sometimes a single Phalange, as in^h Arrian mention is made of Taxis Oeni, Taxis Perdicæ, and Taxis Meleagri &c. who were Phalangarches, as the story sheweth. Sometimes for all the armed, as Taxis Phalangitarum: Sometimes a rancke of men standing embattailed, as in Thucydides, who describing the battell of the Lacedemonians, saith the front (which he calleth the first rancke teen proteen Taxis) consisted of 448. But in a more speciall signification it is taken for a band of Souldiers. And in that signification the number varieth. In Xenophon, it comprehendeth a hundred men: What the number of the Athenian Taxis was, I finde not deliuered by any Writer. That they had Taxiarchs^k Polyenus sheweth plainly. And if a man with leaue might gesse, I would imagine their Taxis consisted of 250 men: For I finde in the same place of Polyenus, that they had Chiliarchies, Pentecoliarchies, Taxies, and Lochagies. I haue before shewed, that Lochos in Xenophon is made sometimes of about 100. men. Out of which may be inferred with probability, that Taxis, being the next degree above the Lochagie, hath the double number, or more; The rather because a Chiliarchy hauing in it a 1000. the Pentecoliarchy must haue 500. and by likelihood the Taxis 250. as being the next office vnder the Pentecoliarchy. But whatsoeuer the Taxis of the Athenians, or of other people was, Aelian maketh his Taxis up with 128 men, and 8. files; which is a double number to the Tetrarchy. With whom Suidas agreeth, giuing 2. Tetrarchies to a Taxis: and saith it consists of 128 men. The Commander of the Taxis is called a Taxiarch, as the Commander of the Tetrarchy is a Tetrarch. Here I am to note by the way, that the Interpreter of Xenophon translateth Taxiarcha, the Commander of a Cohort; where Taxis in the straighter signification cannot be taken for a Cohort because a Cohort differeth much in number, hauing in it at the least 500. and odde men, where the Taxis, when it is greatest hath no more then 128. And^l Polybius saith plainly, that Spira is the Greeke word, that fully expresseth the Romane Cohort.

l Polyb. lib. 11.
641. C.

m Polybius
callet a Co-
hort Syntagma,
lib. 11 § 41. C.
n Diod. Sicul
lib. 13 § 91.

* Cap: 31.

o Suidas in
mecos.

p Suidas in
Xenagos &
Iul. Poll. lib. 1.
cap 10.
q Polyb. lib. 1.
33. B.

4 A Syntagma] The word commeth of Syntasso, or Syntatto, to place together; and a Syntagma is a body compounded of many parts artificially put together. But it may be taken for any body in the armie. Diodorus reports of Dionysius the elder That after he had diuided his whole Armie, (which had in it 30000) into three parts, he employed two against the Carthaginian Campe in diuers manner: himselfe tooke the Syntagma, or third part, which consisted of mercenary Souldiers, and led against that quarter of the campe, which had the Engins. Aelian also useth the word diuerslie; For he calles the whole armie by the name of Syntagmata, in the plurall number, and sometimes Syntagma in the singular. And further giues the same name to a file; Suidas likewise describing the length of a Phalange, saith, it is the first rancke (Syntagma) of file Leaders, which stretcheth forth in a right line from wing to wing. Whereby appeareth that which the Logitians affirme, (which I touched before) that there are more things then names of things: And that fit names cannot be giuen to all. The names that haue bene giuen by antiquity, to expresse the severall bodies of the Phalange, are to be retained by vs, as proper enough to signifie the thing they meant. Neither are we to vary from them, vlesse we our selues can inuent better. The Syntagma that Aelian here mentioneth, is framed of two Taxies, that is of 16. files, & of 256 men. The Commander of it is named a Syntagmarch. And where he addeth, it is called of some a Xenagy, we are to vnderstand that Xenagos was he (amongst the Grecians) that had the command of a band of strangers, (as he that leuied strangers was called Xenologos) and the band it selfe was called a Xenagy. Why the Syntagma should haue the appellation of Xenagy, I cannot diuine; vlesse the reason were, because it was about the number

number, wherof strangers made their companies, that serued amongst the Græcians. And I thinke, and shall till better information, that the body of the light armed called a Xenagya mentioned hereafter, had that name likewise for the same reason. Now of all the bodies in this Chapter mentioned, there is none that cometh so neere the companies used at this day, as doth the Syntagma, for (excepting that our numbers differre, and are in diuers places more, or lesse) the offices of each are alike. You haue in the Syntagma a Lieutenant, or Reare Commander; so in our Companies. In the Syntagma, is an Ensigne, and an Ensigne-bearer; the like in our Companies. In a Syntagma is one Sergeant, our Companies haue more. The Syntagma had a trumpet, and our Companies for the most part haue two drummes. We onely want a Crier, which euery Syntagma amongst the Macedonians had. What the use and place of all the Officers was, I will straight discover.

5 Five superordinarie men;] Namely the Ensigne the Reare-commander, the Trumpetter, the Sergeant, and the Crier of whom we last spake. That which I translated, superordinarie, is in Greeke Ectactoi. Suidas giues the reason, why they were so called: because (saith he, they were not numbred as part of the battaile, that is ordered in files & ranckes. As Xenophon saith of Miriarches, Chiliarches, and Taxiarches, & other Commanders (whom Cyrus called to him) that they were not recounted amongst the militarie numbers, and might depart from the Phalange without altering the forme thereof. In the files they could not be, because they should so increase the number in the files, and make one longer then an other, and hinder doublings, and other motions, besides the deformity, they should bring in, in making the battaile vneuen: And a file of themselves they could not make. The like disorder would they bring in the ranckes, where they could not conveniently stand, vnlesse some body filed with them, being much short of a file of themselves. Besides their employment is to stirre here and there apart, as they are commanded: where they of files, and ranckes neuer moue single, but jointly, as shall seem good to their Commander. And albeit these five bee removed from the battaile, yet remaineth the battaile without them entire of it selfe, and in perfect forme, as though there were no neede of them, when notwithstanding their use is otherwise so needfull that although the battaile may be, it cannot well be without them.

An Ensigne] Our use is to call the Ensigne-bearer an Ensigne for breuities sake; As a Drummer, a Drumme, a Trumpetter, a Trumpet; and that not absurdly. A distinction will easily appeare in common speech, by the application of words of circumstance to the one, or the other. The end why ensignes were diuised appeareth in Diodorus Siculus; he giuing diuers reasons, why the Egyptians (whom he accounted the ancientest of men) were carried away with superstition of worshipping Beasts, after the manner of the Countrey, hath amongst other words these in effect: A second cause the Egyptians giue, because of old time being in diuers conflicts thorough disorder in their Armie, vanquished by their borderers, they had recourse to the inuention & bearing of Ensignes in their troupes. They say therefore, that preparing images of the beasts, they now worshippe, and fastening them to the ends of long stauces, the Commanders caused them to be borne aloft; by meanes wherof euery man knew of what troupe he was. And seeing this good order auailed much to victorie, they conceiued, that the beasts were the cause of their safety. In recompence whereof they ordered, that none of these beasts should be killed, but be honoured with religious care and worship. Ensignes were then deuised for readines to direct soldiers in particular, whither to resort in time of fight. Cæsar practise agreeth hereto: he telling of his owne soldiers disorder hath thus: Whatsoeuer part they came into by chance, and to what Ensigne soeuer, there they staid, least in seeking their owne

Suidas in Ecclæos.

Xenoph. Cy. top. lib. 3. 78.

Diodor. Sicul. lib. 1. 34.

Cæsar. de bell. gall. lib. 4.

a Suidas in
Eclatios.

b Polyen. lib. 1.
in Baccho §. 1.

c Curtius lib. 8.
372.

d Plutarch. in
Crassio

e App. in Par-
thicus 143.

f Leo cap. 18.
§. 113.

g Plutarch. in
Lycurgo.

h For this mea-
sure see Iul.
Pollux. lib. 4.
cap. 10. §. 2.
i Pzan in a
hymne proferre
Apollon. Iul.
Pollux. lib. 1.
cap. 1. §. 33.

k Thucyd. lib.
1. 391. A.
l Polyen. lib. 1.
in Prole §. 6. 1.
m Athenæus
dipnosoph. lib.
12. 517. A.
n Paulan. in
Laconicis. 193.
o Polyb lib. 4.
219. E.

8 A Trumpet.] The invention of the Trumpet is attributed to Turbenus Hercules sonne. But the different use of these officers is worth the noting out of a Suidas: The Crier, saith he, serueth to deliuer directions by voice, the Ensigne by signall, when noile taketh away the hearing of the voice: the Trumpet by sound, when thorough thicknes of dust a signall cannot be discerned: The Sergeant to bring such things, and dispatch such messages, as his Syntagmatarch commands. So that these officers were held all necessary for a Company, the one supplying the defect of the other, and seruing for use when the other failed. The Trumpet then was to be used according to Suidas, when neither the Crier, nor Ensigne could doe seruice. With the Trumpet was the signall giuen for the Campe to remoue, for the Campe to lodge. By the Trumpet the Souldiers were taught their time to fight, their time to retreat. The Trumpet set and discharged the watch. From the Trumpet came the measure of the Marche, and the quicknes, and slownes of Pace. In brieft, the Trumpet did all the offices, that the Dromme doth with vs at this day. Whether the Trumpet or Dromme are of most use in the field, I may not now dispute. Onely I will say that the Græcians and Romans the most expert and iudicious Souldiers, that euer were, held themselves to the Trumpet, and neuer vsed the Dromme. The Dromme was first invented by Bacchus, who, as Polyenus reporteth, fighting against the Indians, in stead of Trumpets, gave the signall of Bataille with Cymballs and Drommes. From him it came to the Indians, who used it also together, as Curtius noteth in the battell betwixt King Alexander the Great, and Porus. The Dromme of Parthians is described by Plutarch in the life of Crassus; and by Appian. And Leo saith, the Saracens, who invaded Christendome, and infected the Turkes with their superstition, ordered their fights by the Dromme. From this Easterne Asiaticall people it was brought into Europe; and now the generall custome is amongst all European Nations, that the foote haue Drommes in the field, the horse Trumpets. And yet for the Trumpet, I cannot say, that all the Græcians held themselves precisely unto it. Plutarch much commendeth the Lacedemonian manner of ioyning with the enemy, and writeth it is in this sort: When the King hath offered the Goale (that was the Lacedemonian sacrifice, when they were to giue bataille) hee straight commands all the Army to crowne their heads, and the Flutes to sound the measure of the Cassor: And himselfe withall beginneth the Paan; (the song they vsed when they were to charge) and advanceth first against the enemy. So that it is a braue, and no lesse fearefull thing to behold them pacing according to the measure of the Flute; neither dissolving to behold them pacing according to the measure of minde, but mildely, and ioyfully their order, nor thewning any astonishment of minde, but mildely, and ioyfully approaching the danger of conflict, diuiding out their Marche to the sound of the instrument. For it is not likely, that men so demeaning themselves, can be transported with feare, or choler. Nay rather they must needs haue a settled minde full of hope, and assurance, as if God were present on their side: thus Plutarch. Out of whose words it is cleare, that the Lacedemonians used no Trumpets in fight, but Flutes, and made them their instruments to dance, as it were, the measures of warre. For they used an easie, and slow pace, framed to the cadence of the sound, which may well be resembled to the solemn measure, in dancing. Athenæus rehearseth out of Herodorus, that the Lydians used the like. But he addeth; that the Cretans made choice of the Harpe for their instrument of warre; as though it had beene peculiar to that nation. Paulanias testifieth the like of the Lacedemonians. Polybius goeth not so farre, but affirmeth onely that the Cretans, and Lacedemonians in stead of Trumpets brought in Flutes, and measures into the warre. And if it were so that the Lacedemonians used Harpes, it is like, they tooke them from the Cretans. For I finde

in Plutarch, that Lycurgus brought many of his lawes from Crete, and had great familiarity with Thales the Cretan, whom he also sent to Lacedemon, to make an ouer-
ture for the establishing of his lawes, that were then newly finished. Yet Diodorus Siculus reporteth, that the Lacedemonians used also Trumpets in their Batailles. He writing of a fight that was betwixt the Thebans, and Lacedemonians under the leading of Agesilaus, useth these words in effect: There was a strong fight betwixt them a long time, and at first Agesilaus had the better; but afterward, when the Thebans issued out of the City at all hands, Agesilaus seeing the multitude, caused the Trumpet to sound a retreat. The signe of retreat here, was giuen by Trumpet, and it seemeth the Lacedemonians had the use both of Trumpet, and Flute. Of the Flute in pacing toward the enemy to ioyne bataille; of the Trumpet in all other military signalls, such (I haue before noted) as the rest of the Græcians gave by Trumpet. The place of the Trumpet in the time of the Bataille was within the Phalange by the Ensigne. Thucydides placeth the Flutes of the Lacedemonians within the bataille, where they can finde no roome, vlesse they stand by the Ensignes. And albeis Polienus saith, the Flute led the Army, and went before, yet that is to be understood in the marche. For in case of a Marche, or exercise, Leo also giueth the Trumpet place by the Capitaine in front. When the fight cometh, he retireth himselfe to his place in the Bataille with the rest.

9 A Sergeant.] The word Hyperetes significeth a Minister, (which is all one with the French word Sergeant, as appeareth by the interpretation of our Law it selfe, wherein the Sergeants, next degree to Iuricks, are called seruientes ad legem. I reseyne therefore the name of Sergeant, because it is familiar amongst souldiers. And a Sergeant hath the same office in our Warre that Hypenetes had amongst the Græcians. What his duty and seruice should be, is declared out of Suidas. There were of these officers, as well among the horse, as the foote, as appeareth in Xenophon. The estimation and worth of their places is expressed by the same Xenophon. Cyrus held the Sergeants in warre, saith he, worthy of no lesse honour, than messengers, and Embassadors in peace. He conceived that they ought to be trusty, skillfull in matter of warre, vnderstanding, quick, swift, industrious, and voide of feare; besides endued with all qualities requisite in the best sort of men; & that they were to accustome themselves to refuse no manner of seruice, but willingly vndergo whatsoeuer is laid vpon them by their Commanders. These Sergeants attended their Commanders in Marches, and other times, saue onely when Bataille was to be ioyned, and alwaies expected his command. During the fight, they retired to some place, where they might be ready at call; for (as I said before) they could haue no place in front.

10 A Crier.] Concerning the office of a Crier, Suidas hath taught vs, that he was to deliuer the Commander's pleasure by voice. Leo calleth him Mandator, from the Latine word, because he signified to the souldiers, Mandata, the commandments of the Capitaine. In exercise he stood at the head of the Troupe, taking from the Commander the words of direction, and making, as it were, proclamation of them to the souldiers; and serued often, when neither Trumpet, nor signall might be giuen; he was otherwise also of great use. For in all busines which required distinct signification of any sudden alteration in the armie, the Crier had his part alone. Xenophon telleth in the Græcians returne out of Persia, that Clearchus their Generall led them not against the enemy, both because their courages began to fall; and also because they were all the day fasting, and it grew somewhat late. But yet hee turned not out of the way, lest he might seeme to flie; but holding on right forward, he came with the vanguard

r Polyen. lib. 1.
in Prole §. 6. 1.
Paulan. in La-
conicis 193.

s Thucyd. lib.
1. 393.
t Polyen. lib. 1.
in Prole §. 1.
u Leo cap. 7.
§. 53.

x Suidas in
Eclatios.
y Xenophon.
Cyrop. lib. 7.
191. A.
z Xenoph.
Cyrop. lib. 2.
44. D.
a See Suidas in
the word Kerux.

b Leo. cap. 4.
§. 16.

c Xenoph. de
exped. Cyri
lib. 2. 277. E.

vantgard, to the next Villages by sunne-set there quartered; The very timber of the houses of some of those Villages was broken downe, and carried away by those of the Kings armie. The first therefore lodged themselves reasonably, the last being be-nighted euery man tooke vp his lodging as it fell out, and made a great noise, calling one after another, so that the enemy heard it. Whereby it came to passe, that the next of them fled out of their tents. This appeared the next day, for neither was there earriage-beast, nor Campe, nor smoake neere at hand to be seene. The King also was terrified as it should seeme, with the accessse of the Armie. Which he declared by the next daies worke. Yet in the proceesse of night a feare seased the Gracians themselves: and the tumult, and hurleburly was such, as is wont, when men are possessed with feare. Clearchus in this distresse commanded Tolmides the Elean (whom hee then had with him, the best Crier of those times) after silence, to make proclamation, that the Commanders signified generally, that whosoever could bring forth the Author of this tumult should haue a talent of siluer for his paines. After this proclamation made by the Crier the Souldiers perceiued, that their feare was vaine, and that the Commanders were insafery: *Hetherto Xenophon. By which narration may appeare, that the Crier performed that, which neither Trumpet nor other signall could doe, the terror rising in the night (which is the time of confusion and disorder) and neither could the Trumpet giue any certaine sound to remedy the perill, nor any other signall be discerned by reason of the darknesse; and this seruice was done by the Crier amongst his owne folke. His seruice against the enemy is declared in the fact of Cleocrytus the Athenian Crier who after the fight, betwixt Thrasybulus and the 30. Tyrants (wherein Critias and Hippomachus were slaine) with a proclamation to the Citizens, reconciled them to Thrasybulus, and was cause that the Tyrants were deposed, and had their authoritie abrogated by the people. The like seruice was done by a Crier in the behalfe of the Gracians against the Persians, about the time of the battaile of Plataeæ. The storie is this:*

When the Gracians vnder the conduct of Leotychides, the Lacedemonian, and Xanthippus the Athenian, had gathered a flecte of 250. Gallies together to the end to deliuer the Ilanders, and the Citties of the Continent of Asia the lesse, out of the seruitude of the Persians, they sailed out of Delos. The Persians then remained at Samos. But hearing of the approach of the Gracians, they left Samos, and put ower to Mycale a City of Ionia. And because they perceiued their shippes vnfit for fight, they drew them on land, and fortified the place, where they landed, with a wodden wall, and a deepe trench. Neuerthelesse they sent for foote forces, from Sardes, and other the next Cities, and assembled to the number of a 100000 men; And made prouision for all things necessarie for warre, the rather, because they suspected the Ionians would reuolt. Leotychides hauing put his flecte in order, failed towards the Barbarians, that were in Mycale, and dispatched away before a shippe, wherein was a Crier, who had the shrillest voice in all the Armie. Him he commanded to saile vp close to the enemy, and to proclaime aloude, that the Gracians hauing overcome the Persians at Plataeæ, were now come thither to deliuer and set free the Gracian Citties of Asia. This was done by Leotychides to the end to disseuer the Asian Gracians from the Barbarians, and to raise a tumult in the enemies Campe. Which also came to passe. What seruice could bee of more importance, then to set a diuision betwixt the enemies? It was done by the voice of a Crier. More examples I could alledge, but these may suffice. The Criers place was alwaies to attend the Commander in the head of the Troupes, vnlesse in the time of fight; at which time his voice could not be heard but gaue place to the noise of Trumpets and clashing of armor.

^a About a 176 pounds sterling
Iul. Poll lib. 9.
cap. 6. 430. 437.

^b Xenoph.
hystor. Græc.
lib. 2. 474.

^c Diodor. Sic.
lib. 11. 260.

11 A Tetragonall forme] That is of foure equall sides, or foure square; But we must understand (which Ælian after teacheth) that there are two kinds of Tetragonall, or square bodies military, one in number, the other in figure. In number, when the front, and flanke of the body haue either of them as many Souldiers, as other; as the Syntagma hath 16. in front, and 16. in flanke. In figure, when the number of the front is greater, then the number of the flanke, and yet front and flanke stretch out an equall length of ground; as in the squares of horse, whereof Ælian speaketh hereafter. This last square is at this day called a square of ground, because the space of ground, which containeth the length of the front, stretcheth out iustly as far, as the space of ground, which containeth the depth of the flanke. It is caused by the difference of distance, which is betwixt the Souldiers in front, and betwixt the Souldiers in flanke. In front, being closed to fight, the distance betwixt Souldier, and Souldier, is but a cubite; that is a foote, and a halfe. The distance betwixt Souldier, and Souldier, in flanke is two cubits, or three foote, which proportion will giue no more, then halfe so many men in flanke, as in front, and yet maintaine the trueneesse and eueneesse of the sides of the figure; that is the length of the line, which measureth the front, and flanke, shall be all one.

Ælian cap. 18.

12 A Pentecosiarchie] The word is a command of 500, and that was sometimes the number. In the Macedonian Phalange, it comprehendeth a 512 men. The cause of difference is the difference betwixt the file of the Macedonians, and the file of the ancient Gracians (whereof I haue spoken before) the odde 12 men comming in by the fifth doubling of 16. And the number being so neere 500, though somewhat above, the name of Pentecosiarchie is still retained; because it was then in use, and no other more fit could be found.

13 A Chiliarchie] The command of 1000 men according to the name; Ælian giueth it a 1024, from the doubling of 512. The Tribunes of the Roman Legions are by the Greeke Historians termed Chiliarchs; yet is there a great difference; for the Chiliarchs haue no more command, then ouer their Chiliarchy consisting of 1000 men, and sometimes of more, as here in Ælian of 1024. But euery Tribune had in his turne the command of the whole Legion. And againe there being 12 Tribunes, to euery Legion (which at first had in it 3000, afterward 4000, then 5000, and in the time of Vegetius 6000 men) how should a Tribune be called a Chiliarch and be a Leader of a thousand; there being in the legion but 6000 men at the most, and yet 12 Tribunes; so that euery one could not haue, above 500 for his command; and in Polybius time, (the legion being but 4200) not above 300 and odde. But the Roman manner of warre and ordering of troupes, differed much from the Gracians; and the Gracians in terming a Tribune a Chiliarch, tooke the next word, and most significant amongst them to expresse the charge of a Tribune. Our Coronells, for their command, of a Regiment come neerer to the Gracian Chiliarchs; yet ours differ in that they haue Companies in their owne Regiments, which the Gracian Chiliarchs had not, and where ^d Curtius saith, that the Chiliarchy was first instituted at Babylon by Alexander, as a reward for seruice, it seemeth to be otherwise. For as I finde this in no other Author, so finde I, that Chiliarchs were long before Alexanders time. ^e Xenophon reporteth, that Cyrus to giue encouragement to his souldiers to be valiant, promised to the Taxiarchs to make them Chiliarchs, to the Lochagi to make them Taxiarchs, to the Decarches to make them Lochagi, to the Pempadarches to make them Decarches; And that Cyrus made a Chiliarch of horse in regard of his worth, and forwardnesse in seruice. ^f Xenophon, Cyrop. lib. 4. 88 B; Chrysanthas a Chiliarch of horse, and afterward in seruice. ^g Xenophon, Cyrop. lib. 6. 168. C. D. And afterward he calleth ^h Phranuchus, and Asiadaras, Chiliarchs of horse, and Artabafus and Artageras Chiliarchs of foote: ⁱ Polyenus witnesseth that in Iphicrates his time the Athenians had Chiliarchs, and Pentecosiarchs, so that the institution

^a Plutarch, in Romulo.
^b Salust. in Iugurtha.
^c Veget. lib. 2. cap. 2.

^d Quint. Curt. lib. 5. 166.

^e Xenoph. Cyrop. lib. 2. 43.

^f Xenoph. Cyrop. lib. 4. 88 B;

^g Xenoph. Cyrop. lib. 6. 168. C. D.

^h Polyen. lib. 2. in Iphicrate

^a Arrian, lib. 3.
64. C.

^b Diod. Sicul.
lib. 18. 653.

of Chiliarchs could not be referred to Alexanders being at Babylon, considering it was in use before; And ^a Arrian reporting the same story, saith not, that Alexander first brought up Chiliarchies there, but that he ordeined two Lochi in euery horse troupe (where to that day there had bene none) and two Lochagi to command them. Indeed ^b Diodorus Siculus, writes thus concerning a Chiliarch. Antipater, saith he, lying vpon his death-bed declared Polyperchon Protector of the Kings (being the eldest of thole, that had serued Alexander in his warres, and much honoured of the Macedonians) and his owne sonne Cassander the Chiliarch, and second man in authority. The place and institution of the Chiliarch first grew to name and honor vnder the Persian Kings. So writes Diodorus of this Chiliarchy which Antipater bestowed vpon his sonne Cassander. Which notwithstanding seemes much to differ from the common Chiliarchy of the Phalange, whereof Curtius speaks. For Diodorus saith, he was next to Polyperchon in authority. Where in the Phalange there were many Commanders, namely, the Merarchs, the Phalangarchs &c. about the Chiliarchs. Adde that he saith, the institution of this Chiliarch came from the Persian Kings, when the Chiliarchs of the Phalange had their beginning from the Gracians, and were ordinarie in Phalanges, as I haue shewed. Lastly where Diodorus reporteth, that it had the increase and aduancement of honour from the Persian Kings, he sheweth plainly, it was not Alexanders inuention. And the same Diodorus speaking of the death of Ochus King of Persia telleth, that he was poisoned by Bagoas his Chiliarch in the time of the reigne of Philip, Alexanders father. This Chiliarch then I take to be the same, that the Generall of an armie is with vs. And I can hardly be perswaded, that Antipater would bequeath a lesse place to his sonne Cassander.

^c Thucyd. lib. 1.
33.

14 A Merarchy] The command of a part or halfe; for a Phalangarchy consisteth of two Merarchies. So that a Merarchy is halfe the Phalangarchy, and containeth 2048 men. This part is also called Telos, of which I haue spoken in my notes to the seventh Chapter. And yet the word Telos is not alone used in bodies of foote. For ^c Thucydides speaking of the fight by sea betwixt the Corcyraens, and Corinthians, telleth, that the Corcyraens gaue the right wing to ten Athenian shippes, and hauing of their owne a 100 and 10 shippes, diuided them into three Tele, euery of which was commanded by one of their Generalls: so that Telos there signifieth not a certaine number of shippes, but a part of their fleet diuided into 3: & the Commanders of the Corcyraens are called Strategoi.

^d Arrian, lib. 1.
14. E. & 35. E.
& 60. A.

15 A Phalangarchie] The command of a single Phalange. Of this kinde were the ^d Phalanges in Alexanders armie (as I take it) which were led by Cynos, by Perdicas, by Craterus, by Amyntas, by Ptolomy, by Meleager, and other, as Arrian hath; Before Philip and Alexander gathered those forces together, wherewith Persia was subdued, the armies were of smaller number amongst the Gracians. Neither was it in many Cities might to raise 4096 men; which go to the Phalangarchy of Aelian: If any did, they might well call it an armie (Strategia, and the Commander Strategos) and the name of Strategos, or Generall was usually giuen to him, that commanded in chiefe ouer an armie (though small) sent out by any Citie to warre. So then, as the Generall was called Strategos, a Phalangarchie might also be called Strategia. I haue before noted, that the sections of the Phalange are limited, and laid out by the Phalangarchies. And where there are 3 sections in a Phalange, the middle section is in the midst of the 4 Phalangarchies, 2 Phalangarchies lying on the one side, and 2 on the other. The 2 other sections are one betwixt the 2 Phalangarchies of the right wing, the other betwixt the two Phalangarchies of the left wing, for betwixt euery Phalangarchie was a space or section.

16 A Diphalangarchie] The command of two Phalangarchies; this was one of the wings. Aelian giueth it no Commander ordinary, neither doe I remember, that I haue

haue read Diphalangarchs of Diphalangarchia, as Phalangarchs of Phalangarchia; Tetrarchs of Tetrarchia. Yet was there one, alwaies that commanded the wings, appointed to that place extraordinarily; So ^a Philip, at the battaile of Cheronæa (where he ouerthrew the power of the Athenians, and Thebans, and their Allies) took the one wing to himselfe, and gaue the command of the other to Alexander his sonne being then but young. And ^b Alexander as Granicus commanded himselfe the right wing, and appointed Parmenios to the left. So in the battailes against Darius at ^c Issos in Cilicia, and at ^d Gaugamela in Syria.

^a Diod. Sicul.
lib. 16. 155.

^b Arrian, lib. 1.
14. D.
^c Arrian, lib. 2.
35. B.
^d Arrian, lib. 3.
60. B.

17 Meros] Meros is a part by diuision, coming of the verbe, meiro to diuide. And as before, Amerarchie, was halfe a Phalangarchie, so here Meros is halfe the four-fold Phalange. Each then signifieth halfe, but to distinguish them, the one is called a Merarchie, that is a Commande of halfe, the other Meros, that is halfe: A distinction sufficient to know the one from the other. Two of these Meros make the Phalange containing 16384 men. And these are the bodies militarie, which Aelian in this Chapter describeth, and which were in use amongst the Macedonians. The other Gracians used other bodies in their armies. The ^e Lacedemonians diuided their whole city, into fixe bodies, horse and foote; euery one of which was called Mora, or Moira. Their Generall was one of their Kings, for they had alwaies two. Euery Moira, had a Polemarch (not much differing from our Coronels) foure Lochagie, eight Pentecosteres, and sixteene Enomotarchs. What the number of the Moira was; is vncertaine, by reason of the secrecy the Lacedemonians used in their government, as ^f Thucydides saith. Plutarch ^g reporteth, that Ephorus the historian, giueth 500 men to the Moira, Calisthenes 700. Polybius and others 900. ^h Diodorus Siculus, agreeth with Ephorus, and alloweth but 500 to the Moira. And ⁱ Xenophon numbrell the Moira of the Lacedemonians, which Iphicrates, defeated hard by Corinth, to haue been about 600 men. ^k See the Scholiastes, of Thucydides, for the exact number of these bodies. The ^l Athenians had their Chiliarchs, Pentecosiarchs, Taxiarchs, and Lochagie, as I haue said before. And with them were the Lochagi last, where with the Lacedemonians they were next the Polemarchs, but the number of the Lochos was not alike, as I haue likewise shewed before. Cyrus in ^m Xenophon hath these orders militarie, Myriarchs Commanders of ten thousand, Chiliarchs of a thousand, Taxiarchs of a hundred, Lochagi of twentie foure, Decadarchs, called sometime Dodecadarchs of 12, Pempedarchs of fixe, which are also called Hexadarchs. ⁿ Vrbicius differeth not much from Aelian, saue onely in the number of the file, and the Officers of the file. For where Aelian hath sixteene to a file, Vrbicius hath but ten: and Vrbicius alloweth but two Commanders to the file, the File-leader, and the Bringer-vp Aelian foure; the foure Enomotarchs. For the number of the Officers, in the Phalange they agree. And yet the names are not all one. Aelian beginneth with a Dilochite commanding two files, thirtie two men, Vrbicius with the Lochagos, who likewise commandeth two files of his, and fixe men more, namely 25 men. The next in Aelian is a Tetrarch ouer sixtie foure men, in Vrbicius a Pentecotarch ouer fiftie men. Vrbicius hath next a Taxiarch, a Syntagmatarch, a Pentecosiarch, a Chiliarch, a Merarch, a Phalangarch: And so hath Aelian. The next in Aelian is a Diphalangarch, Commander of 8192 men; Vrbicius termeth him a Myriarch that is the Leader of ten thousand men. The Tetraphalangarchie is last in both. But Vrbicius assigneth no more, then 16 thousand to his Phalange, Aelian 16 thousand and 384. Iulius Pollux thus diuideth his bodies, a Myriarchie, a Chiliarchie, a Taxiarchie, a Hecatontarchie, and a Lochagie. What a proportion Leo makes, is to be seene in the fourth Chapter of his Tactics. Because, he hath a mixture of the Roman and Greeke Orders, I remitt the Reader to the booke.

^e Xenoph. de
rep. Lacedem.
686. A.

^f Thucyd. lib.
39. C.

^g Plutarch. in
Pelopida.

^h Diod. Sicul.
lib. 15. 473.

ⁱ Xenoph. hist.
Græc. lib. 4.

^k Scholiast. in
Thucyd. lib. 5.

^l Polyen. lib. 3.
in Iphicrat.

^m Xenophon
Cyroped. lib.
2. 43. A.

ⁿ Etymologic:
magn: in vocē
Stratos.

So then *Ælian* hath in his *Phalange* of armed (besides the two *Diphalangarches*) 1020. Officers.

<i>Dilochites</i>	512.
<i>Tetrarchs</i>	256.
<i>Taxiarchs</i>	128.
<i>Syntagmataarchs</i>	64.
<i>Pentecostarchs</i>	32.
<i>Chiliarchs</i>	16.
<i>Merarchs</i>	8.
<i>Phalangarchs</i>	4.
	1020.

I have set downe the figures of all the bodies described by *Ælian* as farre, as the *Phalangarchy*. The rest would have beene troublesome to insert as requiring more paper, then would stand with any reasonable proportion; neither are they greatly needfull. For two *Phalangarchies* ioyned in an even front, and in a convenient distance, will figure out a *Diphalance*; foure in an even front with a like distance will make the fourefold *Phalange*. So that thereby the forme of it will appeare.

The precedence, and dignitie of place in the offices of the *Phalange*.

CHAR. X.

The best of the *Phalange* Commanders is placed on the right wing, the second on the left wing, the third in valour in the right hand next the second *Phalange* toward the middle section. The fourth on the left hand next the first *Phalange* toward the middle section likewise. So the first and fourth *Phalange* haue Commanders of the first, and fourth worth: The second and third *Phalange* haue Commanders of the second and third worth. Now wee will shew by demonstration, that the first, and fourth worth, and valor, are equall to the second, and third; So that the Commanders in each wing are of valor alike.

The Leaders also of the severall *Merarchies* are thus disposed. The first hath his place in the head of the first *Phalange* on the left hand: The second on the right hand of the second *Phalange*: The third on the left hand of the third *Phalange*: The fourth on the right hand of the fourth *Phalange*. Also the Leaders of files in euery *Tetrarchy* are so placed, that the Leader of the first file hath preheminance in valor and place; the Leader of the fourth file standeth next him: Then the Leader of the third file, and the Leader of the second file last. For then are *Dilochies* of equall valor when the first *Dilochie* hath the first, and fourth Leaders, the second *Dilochie* the second, and the third Leaders in valor and reputation. For it appeareth in the *Mathematicks*, that, when there are *Analogies*, or answerable proportions of foure magnitudes propounded, that, which ariseth of the first, and fourth, will counteruaile that, which ariseth of the second, and third magnitude. And because there are foure *Tetrarchies* in euery *Syntagma*, wee may giue the Leaders of the *Tetrarchies* place according to the same proportion, as to place the *Tetrarch* of the first *Tetrarchy* on the right hand, giuing him the first place of worth; on his left hand the *Tetrarch* of the fourth *Tetrarchy* in the fourth place of worth. Then againe next him the *Tetrarch* of the third *Tetrarchy* in the third place of worth, and on his

left

left hand the *Tetrarch* of the second *Tetrarchy* in the second place of worth. In like manner are the greater commands also to be proportioned.

Notes.

The former Chapter was of the Officers and of the bodies of the *Phalange*; this is of the place of euery one, according to his worth. And first wee are to note, that all the Commanders were placed in front of those, that they commanded; to the end they might direct, and lead them as occasion should require. For *Xenophon* saith of *Cyrus* army, the *Decadarchs*, or file Leaders, had care of the files, the *Lochagie* of the *Decadarchs*, the *Taxiarchs* of the *Lochagie*, the *Chiliarchs* of the *Taxiarchs*, the *Myriarchs* of the *Chiliarchs*: So in the *Phalange* of *Ælian* the file Leader had the command of his file, the *Dilochites* of the file Leaders, the *Tetrarchs* of the *Dilochites*, the *Taxiarchs* of the *Tetrarchs*, and so the rest, till you come to the General, who cared for all, directed all, and under whom all the Commanders were. The General hath bene placed sometimes in the right wing, sometimes in the midst of the *Phalange*. *Vegetius* saith, that the General of the Armie is accustomed to be in the right wing betwixt the horse, and the foote. Hee addeth, this is the place, which gouerneth the whole battaile, from whence the sallying out is most direct, and free. Therefore he standeth betwixt both, that hee might both gouerne horse, and foote with counsell, and with authority exhort them to fight.

Cyrus in his battaile against *Crefus*, took his place in the right wing, betwixt the right hand point of the battaile, and of the horse, that were ranged in the wing; *Alexander* the great, in his battailes tooke the same place; *Timoleon* in his fight against the *Carthaginians* placed himselfe in the midst of the battaile. *Diodorus Siculus*, saith, that, it is the manner of the *Scythians*, that the King should stand in the midst of the *Phalange*. The like doth *Arrian* affirme of the *Persians*, and saith, that *Darius* had that place. *Leo* also giueth the midst of the battaile to the General. And there placeth the battaile ouer which he would haue him to command.

The best of the *Phalangarchs*] This ordering of the *Phalangarchs* the best on the right hand wing, the second on the left; the third next him in the left wing on his right hand toward the middle section: The fourth in the right wing on the left hand of the first toward the middle section thus, 1 2 3 4 commeth out of a Geometricall proportion, which proportion giueth law to the ordering of the rest of the Commanders. The rule is this: 4. Magnitudes which equally exceede the one the other being compared together that which ariseth of the first, and fourth, is equall to that, which ariseth of the second, and third. As 2. 8. 14. 20. each exceedeth the other, 6. The addition of 2. to 20. begetteth an equall number to 8, and 14. added together. So is it in all other numbers, that haue the same equalitie of excess one above another. Out of this rule of proportion, *Ælian* deriueth the giuing equalitie of strength in the Leaders to euery body in the *Phalange*. For Leaders and Commanders are (or ought at least to bee) chosen by worth, and valour: and the preferments of the field haue bene held the due reward of vertue. Say then the *Phalangarchs* are preferred to their places according to their worth, and that the first *Phalangarch* is most worthy, the second next him, the third next, the fourth least deserving of the foure. If you should place them, as their worth is in a rancke successively one after another, the best before the first *Phalangarchie* in the right wing, the second before the next *Phalangarchie* in the same wing, and leaue the other two *Phalangarches* to command the left wing, the disproportion would be great; the third and fourth not being able to match the worth of the first, and second.

G 3

BH

^a Xenoph. Cyrop. lib. 3. c. 85.
^b Xenoph. Cyrop. lib. 3. c. 203.
^c Vegetius lib. 3. cap. 18.

^d Xenoph. Cyrop. lib. 7. c. 176.
^e Plutarch. in Timol. lib. 20. c. 743.
^f Diod. Sicul. lib. 20. c. 743.
^g Arrian. lib. 2. c. 36.
^h Leo cap. 4. § 65. & 67.
ⁱ cap. 12. § 68.

But if you place the best Phalangarch before the first Phalangarchie on the right wing, the second before the second Phalangarchie of the left wing, the third Phalangarch next him before the third Phalangarchie on the left wing, toward the middle Section; the fourth before the fourth Phalangarchie of the right wing toward the same Section, the valours of the Commanders, will be equal in both wings. For as in the number 1. 2. 3. 4. one and 4. make 5, as many, as is made by joining 2 and 3 together, so the worth of the fourth Phalangarch joined to the worth of the first will arise as high in true valuation, as the worths of the second and third joined together. And where the Phalangarchie on the left corner of the left wing is called the second, and the next Phalangarchie standing in the same wing the third; it is to be understood that it is second in dignitie, not in succession of number; for the fourth Phalangarchie in dignitie standeth in place and number next the first; and the second Phalangarchie hath the last place of the whole Phalange. Their places then are after this manner according to Ælian.

2 f 3 g 4 c a 1
b c d e

For the understanding whereof, you are to note, that

- a signifieth the first Phalangarchie.
- b the second Phalangarchie.
- c the third Phalangarchie.
- d the fourth Phalangarchie.
- e the Section of the right wing.
- f the Section of the left wing.
- g the middle Section.
- 1 the place of the first Phalangarch.
- 2 the place of the second Phalangarch.
- 3 the place of the third Phalangarch.
- 4 the place of the fourth Phalangarch.

2 The Leaders of the Merarchies] As the Phalangarchs so are all the other Commanders of the severall bodies placed by foure, and the same observation to be had, of the dignities of the place, that was in the Phalangarchs: and these 4 Merarchies (for Ælian speaketh of no more than 4) must stand thus.

P M M P P M M P
2 2 3 3 4 4 1 1

P, standeth for Phalangarchs.
M, for Merarchs.

Robertellus confesseth he findeth these Merarchs so placed in a written booke, and it is the true placing. The figures, he setteth downe out of his owne wit (as he termeth it) carry with them no favour of Ælians proportion. Patricius likewise seemeth to have mistaken this proportion in the figures he hath set downe, of which not one is right. I will referre the Reader to their bookes, admonishing him onely of the mistaking. But Ælian placeth here but 4 Merarchs; what order shall be for the other foure? I have alwaies thought Ælian defective in this place, neither could I hitherto finde any man, that hath brought light to cleare the doubt. Patricius that purposely discourseth of this place of Ælian

Ælian, speaketh of bestowing 4 Merarchs onely, as though the rest were to be throwne away from the Phalange. Robertellus seeking to bestow all 8; bestoweth them indeed, but not according to Ælians proportion, which notwithstanding he would seeme to follow. His figure is this.

P. M. M. M. M. P. P. M. M. M. M. P.
1. 8. 4. 3. 6. 3. 4. 5. 2. 1. 7. 2.

The right wing

The Middle.

The left wing.

The proportion is his, as I said, and not Ælians. For Ælian placed the first Merarch in the right wing; he placeth him in the left; Ælian the second in the second Phalangarchie, he in the fourth; Ælian the third in the left wing, he in the right; Ælian the fourth in the fourth Phalangarchie, he in the first. The rest are so jumbled together, as though any thing else had beene sought for, rather than proportion. I take not upon mee to over-rule any doubts; but if amongst the rest I interpose mine opinion, I hope, I shall not incurre inf. blame. Thus then: seeing Ælians meaning is by evenesse and worth of number of both wings to finde out the worth of the Commanders of both, if I so distribute them, that the number of the one side shall counterbalance the number of the other, I cannot much stray from Ælians meaning. The figure following will doe it.

P. M. M. M. M. P. P. M. M. M. M. P.
1. 5. 1. 4. 8. 4. 3. 7. 3. 2. 6. 2.

The right wing

The Middle.

The left wing.

In this figure I have observed precisely the place, that Ælian gave to the 4 Merarchs. The first standeth on the left hand of the first Phalangarch; the second on the right hand of the second Phalangarch; the third on the left hand of the third Phalangarch; the 4th on the right hand of the 4th Phalangarch. The rest I have added, and divided according to the placing of the first: So that the number that ariseth of the addition of both wings, is alike, and the proportion held. In all the rest of the bodies, where there is a Command over 4; the keeping of the proportion hath no difficulty. So every Phalangarch commandeth over 4 Chiliarchs; every Merarch over 4 Pentecosiarchs; every Chiliarch over 4 Syntagmatarchs; every Pentecosiarch over 4 Taxiarchs; every Syntagmatarch over 4 Tetrarchs; every Taxiarch over 4 Dilochores; every Tetrarch over 4 files; In all which the Commander, which hath the right, hath the first place, he that hath the point of the left hand, the second place; he that standeth on the right hand next to him, the third place; the last place is his, who standeth next to the Commander of the right point on the left hand. And for the place of the Phalangarchs, and of 4 of the Merarchs, and the file-leaders, and of the Tetrarchs, they are laid out by Ælian. The rest appeare by these, and are to be squared by the same rule of proportion, as Ælian admonished.

The whole wing.

The right wing. The left wing.

1	3
5	7
1	3
4	2
8	6
4	2
23	23

The Merarchs alone.

5	7
1	3
4	2
8	6
18	18

The

The distances to be observed betweene Souldier and Souldier in opening and shutting the Phalange.

CHAP. XI.

WE are now to speake of *distances* both in length, and depth betwixt Souldier, and Souldier, as they stand ordered in Battaile. The *distances* vary in three sorts. For first they are placed in thinner distance for some speciall causes. And a Souldier so placed taketh vp ^a 4 cubits. But in ^b *Densation* or *closing* he taketh vp 2 cubits. ^c In *Constipation* or *shutting*, one cubit.

Densation then, or *closing* is, when we draw wide distances close together, and by *side-men*, and *followers* (that is both in *length* and *depth*) gather vp the bodie of the *Phalange*: so notwithstanding that the souldier yet hath libertie to moue, and turne about.

Constipation, or *shutting* is when the *Phalange* by *side-men* gathereth it selfe yet closer together, then in *Densation*; so that by reason of the nearenesse there is left no *Declination*, or turning of faces either to the right, or left hand.

The use of *Closing* is, when the *Generall* leadeth the *Phalange* against the enemy. Of *Shutting* when he would haue it stand fast (and as it were *locked vp*, and *serred*) to receiue the charge of the enemy.

Seeing then there are 1024 *File-leaders* in the front of the *Phalange*, it is plaine that 4 in their ordinary array they take vp in length 4096 *Cubits* ^d (that is ten furlongs, and ninetie six cubits) In *Closing* fise furlongs, and forty eight cubits. In *Shutting* two furlongs, a halfe, and fower and twenty cubits.

Notes.

AFTER Souldiers are armed, and distributed into bodies military, the next care is to be had of their Mouing. For as a man, let him be neuer so well proportioned, and strong, if he pace disorderly, and either set too great strides, or reele here, and there, or so mince, and tread out his steps, as if his legges were bound together, groweth hereby deformed, and not onely loseth his comelimesse, but his actiuitie withall, and possibility to performe any thing by strength: So is it of an Armie, that hath either too great distances, or is thronged vp, or pestred too close together. ^a Too much thronging bindeth, as it were, the souldiers hands, and taketh away the use of his weapons, as on the other side ^b falling one loose from another, and standing or mouing too farre asunder, maketh the Battaile weake, and disioined, and subiect to the enemies entry, and easie to be broken. The meane betwixt both was brought in by King Philip, King of Macedonia, who first constituted, and raised the Macedonian Phalange, and invented the distances of opening and closing the same; imitating the ^c ferring of Targets (called *Synaspismos*) practised by the old Heroes at Troy. Out of his discipline sprung the distances mentioned here by *Eliau*: which are of three sorts; The first are large distances of

1. Four Cubits] Which amount to six foote. For a Cubit containeth a foote and a halfe. This ^d distance was used in marching, or else in solemne pompes and shewes. And the souldier hauing a pike of ^e 14 Cubits or 21 long, whereof one halfe lay forward on his shoulder, and the other halfe backward, it was requisite he should haue a reasonable large distance, both in file and ranke, ^f to the end, that in turning this way, or that way,

^a Caesar. de bel. gall. lib. 2.
^b Plutarch. in Philopomene.

^c Diodor. Sic. lib. 16. § 11.

^d Polyb. lib. 13. c. 64. C.

Leo cap. 17. § 61.

^e Polyb. lib. 17. 764. A.

^f Leo cap. 7. §. 54.

way, or that way, or moving out of his place (for no man in his marche, can alwaies hold his ranke) he offended not his next neighbours therewith. This distance our exercise at this day calleth open order. The next distance is of

Two Cubits] Or three foote. The name of it in Greeke is Pycnosis, that is thickenin^g. In Leo it is called Sphinxis, (knitting together) in our moderne exercise Order. And it is, when from the distance of 6 foote, we draw our Phalange both by file, and ranke, so close, that the souldiers stand but 3 foote one from an other euery way. This distance is used, when the Army approacheth neare to the enemy (and onely commeth not to charge) that it may be ready to shut, and locke it selfe for the charge, which is performed in the last distance of

One Cubit] A foote and a halfe. This is called Synaspismos, ioyning Target to Target. For, as I before shewed, the pikemen of the Macedonians used also Targets with their pikes, and in charging the enemy closed so neare in front, that their owne Targets touched one another. This kind of fight the Egyptians used in Xenophon (which he calleth locking together of Targets) and by meanes thereof had the advantage against the Persians. The Parthian horse likewise comming to charge Crassus with their stau^s:

^h After they perceiued the depth of the locking of Targets, and the settlednesse, and stedfastnes of the Roman Phalange, they retired, and durst not come to hands with them. And ⁱ Diodorus Siculus writes that Alexander besieging the City of

Halicarnassus, there was in the City, and in seruice of Darius one Ephialtes an Athenian, a man of great valour, and strength of body; He by the permission of Memnon Generall of Darius Armie, determined to make a sally. And taking to him 2000

mercenarie souldiers, all chosen men, and giuing brands flaming with fire to one halfe, and reseruing the rest for fight, he opened the gates, and fell out, throwing fire vpon the engines of battery, which soone caught a mighty flame; And marshalling the rest into a thicke and deepe Phalange, himselfe led on, and was the first that fell on the Macedonians coming to aide, and to quench the fire. Alexander aduertised hereof speeded to the medley; & ordered first the Macedonians in front, after them other choice men, for seconds; and in the third place men of extraordinarie account for their prowesse, himselfe leading them on sustained the enemy, which seemed vnresistible, and sent others to flake, and put out the fire, and to preserue the Engines. The fight was hot, and albeit the Macedonians found meanes to quench the fire, yet had Ephialtes the better in the fight; who both himselfe killed many with his owne hands, and the towers from the walls furnished with many Catapults annoyed greuously the Macedonians. In so much that some falling in the place, other some forsaking their ground by reason of the number of Engine Darts that fell thicke amongst them, Alexander himselfe was reduced to extremitie. Here the old souldiers of the Macedonians, although otherwise freed from such seruice in regard of their age, hauing of a long time followed the warres with King Philip, and gained many a battaile, were by this occasion tolled out to succour; and as they excelled the yonger sort in greatnes of spirit, and military experience, so meeting with the run-a-waies, they bitterly reuiled, and taunted them for their cowardice; Then * ferring themselves close, and ioyning their Targets together, they repressed, and held the enemy short, who now seemed to haue the victory in his hands. Finally killing Ephialtes, and many other, they droue the rest into the City. A memorable seruice of the use of Targets, and of the Synaspisme of the Macedonians, which was not used, but when they either gaue vpon, or receiued the charge of the enemy. And the Targets so knit together serued for a wall (as it were) to the whole Phalange, and by them the souldier

^g Xenoph. Cyrop. lib. 7. 178. A. It is called by Thucydides, Synelisis, Thucyd. lib. 5. 393. ^h Appian. in Parthisis. 144. A. 164. D. C. ⁱ Diod. Sicul. lib. 17. 775.

* Synaspisantes

was

was defended from the mischievous weapons of the enemy, and his body covered even from the piercing of the sword. Synaspismos then, or shutting, is that distance in the Phalange, which bringeth the soldiers Target to touch one another, and is limited by Ælian to a cubit (that is a foot and a half) betwixt side-men, and side-men in the front. What distance the followers should have, Ælian setteth not here down in plaine words; but implies, that they should hold their 3 footes still, in that he saith the Phalange in configuration gathereth the side-men closer, then in densation, but speaketh nothing of followers. ^a Polybius teacheth it more plainly; who gives them three footes distance from the Leader, both according to the Macedonian and Roman discipline, and that for the use of their armes: with whom Ælian also agreeth ^b afterward. In what manner the Targetiers made their closings, and how their Targets were cast from the backe, where they hung, to the left shoulder, I have before noted in the second Chapter, and therefore thinke it needlesse here to repeat. Now for the ground, that a Phalange taketh up in each of these orders, Ælian sheweth it in the words following, allowing the Phalange.

^a Polyb. lib. 17. 764. A.

^b Ælian. c. 14.

^c See Polyb. lib. 12. 664. C. Leo cap. 17. § 91.

^d Suidas in Plectro.

^e Suidas ibid. & Leo cap. 17. § 9.

4 In ordinary array foure thousand cubits] The Phalange in open order, saith Ælian, takes up 4096 cubits of ground. This is to be understood in front, or length; for in depth it hath no more, then 64 cubits; every souldier (which are in number, 16 in file) possessing 4 cubits of ground in his open order; A cubit is the part of the arme, which reacheth from the elbow to the middle fingers end, and is as much, as a foote and a halfe. In front then, there being 1024 File-leaders, we must allot to each of them foure cubits, of ground; to the thousand 4000 cubits, and to the odd twenty foure 96 cubits. For foure times twenty foure makes 96, which together comes to 4096 cubits, and so six thousand one hundred forty foure footes.

5 Ten furlongs and ninety six cubits] Where this space is squared out by tenne furlongs, we must understand, that a furlong conteines ^a foure hundred cubits, and 4096 being divided by 400 the quotient is 10: $\frac{16}{10}$ that is ten furlongs and 96 cubits, as Ælian saith. Which measure of ground the Phalange of Armed taketh in open Order. Of these furlongs ^e seven and a halfe go to a mile, by which account the front of the Phalange of armed in open order taketh up one mile, a quarter, and 346 cubits, measuring it by fete it amounts to 6130. In closing (which is named Order, and is the next distance) because the souldier is allowed but 2 cubits, that is halfe so much, as in open Order, the dimension will not exceede five furlongs, 48 cubits; that is 2048 cubits in all, which amounts to halfe a mile, halfe a quarter, and 173 cubits, in fete, 3072. In shutting 2 furlongs and a halfe, and 24 cubits; that is a quarter of a mile and 274 cubits.

The arming of the Phalange.

CHAP. XII.

The Phalange is to be armed with Target and Pyke. The best Target is the Macedonian target made ^a of brasse, and ^b somewhat hollow, and having ^c eight handfulls in Diameter. The Pyke ought to be ^d no shorter then 8 cubits; and the longest no longer, then a man may well use and wield in handling.

Notes.

In the second Chapter of this booke was handled the diversitie of armes, used in the Phalange. This setteth forth the choice, that is to be made for matter and fashion, and what

what size is best of pike and target. For the other armor of the armed (whereof I speake, in my notes to the second Chapter) is (no question) to be fitted to the body of him, that shall beare them. He giueth then to the armed a target, and a pike, the target the Macedonian target, the matter whereof was first of brasse. I have shewed, that the Macedonian target was of brasse, and that they were called by reason of the bearing such targets Chalcipides Brazen-targets. I am induced to thinke, that, as Philip borrowed many other things in warre from the Lacedemonians, so he borrowed this kinde of target from them. For they by the ordinance of Lycurgus, were enjoyned to have no other matter in their target, then brasse. ^a Xenophon gives a reason why they were made of brasse. For Lycurgus was of opinion, saith he, that such a Target was most fit for warre, because it is soone brought to shine, and it gathereth not rust easily; two great commodities in armes. For albeit the chiefest considerations be surenesse, and strength, yet is not the beauty to be neglected, which shining doth principally set out. ^b Besides that it dazeleth the eye of the enemy, and strikes an amazement into his minde. ^c Xenophon much admireth Agestilaus, that he so armed, and clothed his armie, that they seemed to be nothing, but brasse, and nothing, but scarlet. The brasse he speaketh of, were the brazen targets of his souldiers, which covered the most part of the body, and were chiefly the object of the eye, without that, that any other weapon was at that time of Brasse. Therefore, as I said, I am of opinion that the brazen Target came from the Spartans to the Macedonians. The Brazen-targets Ælian would have

^a Xenophon de rep. Laced. 886. A.

^b Plutarch. in Craffo. c. Xenoph. in Agestila. 659. B.

² Somewhat hollow] If they should beare straight out without any bowing, besides that they were uneasie, they would lie kicking out from the body, and not cover it much. The arme, or shoulder, that is inserted into the Target, is bowing. And the target somewhat bowing fits it for ease, and stopeth more toward the body to cover it, and is more pliable to be carried. But the hollownesse ought not to be much. He would have it also

³ Eight hand-fulls in Diameter] The Diameter in a circle is a right line, which is drawne from one side of the circumference to the other passing thorough the Center, or middle point of the circle, dividing the circle in two equal parts. Here the Diameter of the target is taken for the exact breadth of the target; which ought to be, according to the Macedonian manner, eight handfulls, or two footes, that is 32 fingers. For four handfulls go to a foote, and foure fingers to a handfull. ^d Leo gives it three Spithams, that is 36 fingers, if he meane the great ^e Spithame, which is of twelve fingers. And the lesse comprehending a handfull he cannot meane. For so should the breadth of the target be no more, but three handfulls, a breadth insufficient to cover any mans body. Whether of them is the better will appeare in triall. The Diameter that serves to cover the bodie from the upper part of the necke to the middle part of the thigh, is enough in these round targets. That, which is more, is rather troublesome, then fit for use. And I am of Iphierates indgement in targets, that performing the covering of the bodie, they should be as light, as may bee, least the shoulder be over-laden with unnecessary weight. In which regard I preferre the Target of Ælian, before that of Leo; Ælians reaching up to the height of the necke from the middle of the thigh; Leos carrying a handfull more in breadth, which in the circumference groweth to a good proportion of weight and greatnesse.

⁴ No shorter than 8 Cubits] That is 12 footes. Shorter pikes against long have a great disadvantage. With the long pike a man is able to strike, and kill his enemy, before himselfe can be touched, or come in danger of a shorter, the pike keeping the enemy out so farre, as the length is. The experience of the battaile of ^f Sorano, sheweth it; where Vitellozzo Vitelli discomfited the Almaines onely with the advantage of pikes an arme longer than theirs. Against long pikes, this policie was used by Cleonymus the Lacedemonian King, as ^g Polienus tells. Cleonymus besieging Edessa, and having over-

^d Leo cap. 6. § 39. c. Iul. Pollux lib. 2. cap. 4. § 32. calleth it a spanne.

^f Patricius Paterl. part. secund. lib. 3. cap. 8. ^g Polien. lib. 2. in Cleonym.

throwne

throwne the wall of the City, the pikemen of the City salied out, whose pikes were each 16 cubits in length. Cleonymus closed his *Phalange* in depth, and commanded the file-leaders to lay away their pikes: and when the pikemen of the enemy came to charge, to seaze vpon their pikes with both hands, and hold them fast, and the followers to passe thorough by the file-leaders sides, and maintaine the fight. The file-leaders laid hold on the pikes, and the enemy stroue to recoquer them out of their hands. In the meane time, the followers passing thorough the ranke of file-leaders to the front, slew the enemies pikemen, and got the victorie. This was Cleonymus deuise against long pikes, which notwithstanding derogates nothing from the length of pikes more, than from shortnes. For the same policie might haue prevailed as well against short pikes, as long, each, as soone as the enemies haue seized vpon them, growing to be of no vse. But that the longer pike is to be preferred before the shorter, I haue shewed before by reason: and the reformation of armes made by Iphicrates amongst the Athenians, and by Philopomen amongst the Achaians, will be warrant enough so to hold. In the length notwithstanding ought to be a reasonable consideration, that it exceede not the measure of his strength, that shall beare the pike.

The worth that the File-leaders, and next followers
should be of

CHAP. XIII.

THE File-leaders (as the Commanders of files of the *Phalange*) are to be the choice and flower of the Army, and to excell the rest as well in stature, as in experience and martiall skill. For this *Ranke* knitteth and bindeth in the *Phalange*, and of all other yeeldeth greatest vse. For, as a sword taking to the edge as a weight, and sway, the swelling yron towards the backe exhibiteth thereby more violence in piercing, so in a *Phalange* the *Ranke* of File-leaders is the edge it selfe, and the multitude of after-commers is the swelling, and sway, and increase of weight.

Consideration must be had likewise of those that follow in the second *Ranke*. For their *Pikes* reach ioyntly ouer the front, and being next in place they are alwaies ready for vse. And the File-leader falling, or being wounded, the next follower stepping to the front in his place, holdeth together, and preserueth the tenor of that *Ranke* vnbroken.

Furthermore, we are to order the third and the rest of the *Ranks* according to reason, and as the valour of our souldiers shall require.

THIS Chapter sheweth how the Souldiers are to be ordered in euery File: whereof, because I haue before spoken sufficiently in my Notes to the fifth Chapter; and the words of this Chapter carry no difficultie, or obscuritie with them, I will forbear to treat any further.

CHAP. XIII.

Of the strength of the Macedonian Phalange, and length
of the Souldiers Pikes.

CHAP. XIII.

THE ¹ Macedonian Phalange hath of enemies beene thought vnresistible, by reason of ² the manner of embattailing. For the Souldier with his Armes standeth in close order, or shutting, when he is ready for fight, ³ occupying two Cubits of ground. And the length of his Pike is sixteene Cubits according to the first institution, but in truth it ought to be foureteene Cubits; whereof the ⁴ space betwixt the hands in charging taketh vp two Cubits, the other twelue lyeth out from the front of the Battaille. Those in the second Ranke, that stand next to the Leaders (loosing foure Cubits in the Phalange) haue their Pikes reaching ouer the first Ranke ten Cubits. Those of the third Ranke eight Cubits, of the fourth Ranke six cubits, of the fift 4 cubits, of the sixt 2 Cubits. ⁵ The Pikes of the other behind cannot attaine to the first Ranke. And seeing fise or six pikes are charged ouer the first Ranke, they present a fearefull sight to the enemy, and double the strength of the souldier standing fortified, as it were, with fise, or six Pikes, and seconded with a maine force at his backe, as the figure sheweth. Moreouer they that are placed after the sixt Ranke, albeit they push nor with their pikes, yet thrusting on with the weight of their bodies, re'nforce the strength, and power of the Phalange, and leaue no hope for the File-leaders to flie, or shift away. Some would haue the hinder pikes longer, then the forme, that they of the third, and fourth Rankes might beare out the heads of their pikes equally with the first.

⁶ The Superordinary Lieutenant of euery Syntagma must be a man of vnderstanding, ouerseeing the souldiers of his command, that they flie, and ranke; and if for feare, or other occasion, any forsake their ground, he is to compell them againe to their places; and in Closing to put them (when neede requireth) as neare vp together, as they should stand. For it is a great strength, and assurance to the Phalange, to haue some principall Commander not onely in front; but also in the Reare of the Battaille, for the causes before mentioned.

Notes.

THE strength of the Macedonian Phalange, which consisted principally in the ^a protension, and charging of pikes, and knitting together of Targets; is here set downe. The whole Chapter seemeth to haue bene taken out of ^b Polybius, who handleth the same argument, and almost with the same words; but that *Ælian*, and he differ about the number of Cubits, which the Pikes take vp reaching ouer the front of the Phalange.

The Macedonian Phalange, hath beene thought to be vnresistible. The strength of the Macedonian Phalange appeareth no way better, than by the conquests it hath made. King Philip was the inuenter of it; and by that inuention raised the kingdom of Macedonia from the poorest, to the powerfulllest, and greatest kingdom of Europe; and (ibid I may use the words of ^c Diodorus Siculus,) finding the Crowne, at his comming to it, in bondage to the Illyrians made it afterward Lady of many great Nations, and Cities; and purchased to himselfe, to be declared Generall of

H

Greece.

^a Appian, in
Synacis 97. E.
^b Polyb. lib. 17.
763. E.

^c Diod. Sicul.
lib. 16. § 10.

Greece. And first ouerthrowing the Illyrians, Paonians, Thracians, and Scythians, afterward set vpon the kingdome of Persia to breake it, after he had enfranchised the Gracian Cities of Asia. And albeit death intercepted him, yet he left such forces to his sonne Alexander, that he needed no other Allies to ouerthrow the Souerainety of Persia. After his death^a Alexander tooke his kingdome, and Armie, and with it encountering, and vanquishing Darius in two great Batailles, runne thorough Asia like a flash of lightning renting a pieces all, that resisted, or stood in his way, and laid the foundation of that kingdome, which (albeit afterward diuided) continued long in his Successors. Neither was the experience of their invinciblenesse against the barbarous people onely, but as much against the Gracians, who till Philips time were esteemed the chiefe masters of Armes in Europe. This is cleare by the victories, the Macedonians obtaine ad against the renowned Cities of Greece both ioyntly and severally. ^c Philip ouerthrew the Phoceans, albeit the Lacedemonians, and Athenians ioynd with them. The same^e Philip at Cheronæa defeated the power of the Thebans, and Athenians ioynd together. ^b Alexander tooke and sacked the Citie of Thebes, that about that time was accounted the mightiest Citie of Greece. ^h His Lieutenant Antipater foyled the Lacedemonians in a set battaile, and slew their King Agis. ⁱ Antigonius Tutor of King Philip the sonne of Demetrius, broke an Armie of the Lacedemonians and Peloponensians at Selasia, and chased out of Greece Cleomenes the last brave King of Sparta. Briefely they were not beaten in the field by any Nation, but onely by the Romans. And yet the iudgement of ^k Polybius, doth in this also proue it selfe good. For where the Romans had these victories against the Macedonians, he assigneth this to be the cause, that the Phalange at the time of the fight had not the proper place, nor meanes to vse it owne power in the encounter; so long as the Phalange hath ground enough, and can meete the enemy with a right front, he holdeth it not possible to be foyled; being diuided, and in places vneuen, he is of opinion, and experience hath taught, it may easily be put in a route. ^l Plutarch compareth it for strength (so long as it is one bodie, and maintaineth the Synaspisme iointly) to an invincible beast; being dissevered, he saith, it looseth the force in the whole, and in every man particular; both in regard of the manner of arming, and also because the violence of it consisteth rather in knitting of all parts together, than in particular of any mans valour. Three battailes (to pratermit diuers skirmishes,) I finde the Romans had with, and therein foyled the Macedonians; One against King Philip, the sonne of Demetrius; an other against Antiochus; the third against Perseus the sonne of King Philip. ^m For I passe over those, wherein they were beaten by Pyrrhus, and had the worst. ⁿ Philip breaking his Phalange, and not vsing the whole together, but fighting against the Romans with the right winge onely, yet had the better, and was too hard for that part of the Roman Army, that ioynd with him; but the other winge comming into the field, sit rather for a march, than a fight, and not being able to order themselves Phalange-wise, were soone defeated, and the Roman victorious; fell vpon the reare of the right wing (where Philip was; and had now gotten the victory) and so wonne the field. ^o Antiochus unskillfull in true ordering of a Phalange, trusted rather to his horse, than his Phalange; and being to fight with L. Scipio, where hee should haue giuen full scope, and extended the front of the Phalange, by making it 16 deepe, he contrary-wise narrowed it, drawing out the depth into 32: whereby he lost the advantage of matching the front of the Romans, and after his horse were beaten, gave facilitie to the enemy of encompassing on it all sides. ^p Perseus ioyning battaile with Paulus Æmilius; as long as the Phalange continued in the right figure, slew many of the Romans, and forced them to retire, but following on too eagerly, he came to an

d Diodor. Sic. lib. 17. 563.
Plutarch. in Alexandro.
Qu. Curt. de reb. gest. Alex. Iustin.

e Diod. Sicul. lib. 16. 541.
Iust. lib. 8.
f Dio. Sicul. lib. 16. 555.
Plutarch. in Pelopida.
Iustin lib. 8.
g Diod. Sicul. lib. 17. 566.
h Qu. Curtius lib. 6. 207.
i Polyb. lib. 2. 151.
k Polyb. lib. 17. 763. D.

l Plutarch. in Flaminio.

m Plutarch. in Pyrrho.
n Polyb. lib. 17. 760. C.
Plutarch. in Flaminio.

o Appian. in Syriacis. 107. D

p Plutarch. in Æmilio.
Livy dec. 5. lib. 4. 73.

even, and rough ground, wherein the Phalange being dissevered, left spaces, and breaches for the Romans to enter and defeat it. So long then, as the Macedonian Phalange had fit ground, and the right property of embattailing, it stood fast against the Romans the greatest souldiers that euer were, being in their hands, that knew not how to vse it (as a sword in the hands of a childe) it yielded to time and fortune. The cause of the strength of the Phalange is assigned to be

2 The manner of embattailing] Which consisteth principally in ordering of Target, and pike; in closing of the Targets by Synaspisme, and in ioint charging of the pikes; which lying out thicke from the front, besides the horror of the sight, giue almost an impossibilitie to enter the Phalange. I haue alledged the iudgement of ^r Æmilius concerning the fight presented by a Phalange, when the Pikes lie so charged out of the front. ^s Polybius thinketh nothing can resist the force thereof. ^t Livy, albeit many times more than partiall to the Romans, yet in the selfe-same fight betweene Perseus and Æmilius giueth his iudgement thus of the Phalange: The second Legion (saith he) insinuated it selfe into the middle empty place, and so broke asunder the Phalange. Neither was there any more euident cause of victory, then the fights in diuers places at once, which first troubled the Phalange in turning many waies, and afterward plainly disioynted, and scattered it; whose forces being vnited and rough with charged pikes are intollerable. If by giuing on in diuers places you constrain it to bring about the pikes immouable through length and weight, it entangleth it selfe with confused crossings. If at one time you charge it both flanke, and reare, they fall asunder like a ruinous building. As then they were compelled many waies to answer the Romans, and so to breake their battaile into many parcells. And the Romans vpon the first opportunitee of a breach straight waies conueighed in their troupes, who if they had met the enemy in front, had runne vpon the pikes, as in the beginning it hapned to the Pelignans, being too forward to come to hand, and could not haue resisted the Phalange fast shut, and ferred vp for the encounter: thus Livy concerning the Phalange. Who albeit a Roman, holdeth the same opinion that Polybius doth. ^u And in an other place telling of Philips encamping, he saith, he was lodged in a woody plot, which was vnfit for the Phalange, especially of the Macedons, which vnlesse it cast the pikes, as it were, a muniment before the Targets, (and that cannot be, but in open ground) is of no great vse. So then if Pikes may be charged out before the Targets, the Phalange is of great vse. But, that I may not seeme, to rely vpon bare opinion, let vs heare by an example, or two, the experience of the Pike, and Target of the Macedonian against the Roman armes. ^v When T. Quintus Flaminius the Rom. Consull had drinen King Philip, and his army from the streights neare Antigonis, seeing that the enemy kept himselfe with his strength, and abstained from the field, he determined to try the Cities of Thessaly; and hauing wonne some by force, some by feare, he came before Rhage, and besieged it. He found the siege longer, and more difficult, then any man would haue thought. And the enemy made his resistance, that way, the Consull would hardly haue beleueed, he could. For he imagined that all his labour should be in throwing downe the walls. If once he found passage for the Army to enter, there would after be nothing else, but flight and slaughter, as is wont, in walled Cities. But after that part of the wall was throwne downe with the Ramme, and the Armie entred the Citie by the breach, it was the beginning of a new and fresh labour. For the Macedonians, that were there in Garrison, being many, and chosen, thinking it also a glory to them, if they could defend the Citie, rather with

H 2

armes

armes and valor, than with walles, *ferring* themſelues cloſe together in a deepe *Phalange*, when they perceived, that the Romans began to enter the breach droue them out, the place being cumberſome, and hard to make a retreat. The *Conſul* much offended therewith, and thinking that ſhame concerned not only the delay of winning one Citie, but alſo the ſtate of the whole warre, (which for the moſt part dependeth vpon moments of ſmall matters) purging the place which was heaped vp with the fall of the halfe-ruined wall, aduanced a Tower which in many ſtories was ſtuffed with multitudes of armed men, and ſent beſides *Cohorts* vnder their Enſignes to breake with maine force (if it were poſſible) the body (they call it the *Phalange*) of the Macedonians. But the kinde of weapons and fight was more aduantageous for the enemy, than for the Romans; eſpecially in that place, which was narrow, and ſtreightned with the ſmall ſpace of the ouerthrowne wall. When the Macedonians, *ferring* themſelues cloſe, had charged pikes of a great length before their front, and the Romans, after their darts throwne in vaine againſt the *Ieſudo* compacted, as it were, of the thicke knitting together of the Targets, had drawne their ſwords, they could neither come vp cloſe, nor cut a ſunder the pikes. And in caſe they cut the heads of, or broke any, the ſkeale amongſt the reſt of the whole pikes filled vp the roome with their ſharpe fragments. Ioyne that that part of the wall, which was yet whole, ſecured the enemies flanks on both ſides; neither needed they much ground in retiring or aduancing to charge, which things are wont to cauſe the breach of array. There alſo fell out a chance which increaſed their hopes, and ſpirits. For the Tower being driuen on vpon a rampier, that was not well rammed vnderneath, but had looſe earth, one of the wheelles ſinking deeper into the ground than the reſt, made the Turret to nodd, & lie of one ſide, that both the enemy beleeued it would fall, and they within it were put in a pitifull feare. When nothing ſucceeded well, the *Conſul* was euill appaide, that the Macedonian ſouldiers, and kinde of Armes, might ſeeme matcheable to his, and ſeeing no great hope of ſpeedy winning the Citie, and that the place was vnfit to winter in, raiſed his ſiege. So here the Macedonian ſouldier is not onely equalled, but alſo preferred before the Roman, and that onely by reaſon of his armour, the Pike and Target. An other experience fell out in the battaile betwixt Perſeus, and *Emilius*, whereof I ſpake in this Chapter. The ſtorie is this: The Romans comming to ioyne battell with the Macedonians, and not able to come vp to them by reaſon of the length, and ioint out-bearing of their pikes. There was one *Salus* a Captaine of *Pelignans*, who tooke the Enſigne of his Company from the Enſigne-bearer, and threw it into the Macedonian *Phalange*. The *Pelignans* ranne in heapes to the place (for it is not lawfull, nor honeſt, for the *Italians* to forſake their Enſignes) where the medley brought forth wonderfull effects. For the *Pelignans* fought with ſwords to put by the pikes, and to preſſe them downe with their Targets. And ſeizing vpon them to pull them out of the handes of the Macedonians. The Macedonians contrary wiſe, maintaining their charge with both hands, and ſtriking ſuch, as approached neare, thorough the bodies, armes and all, neither Target nor Carace, being able to ſuſtaine the violence of the blow, turned topſy-turuy the bodies of the *Pelignans*, who not with reaſon, but with the rage of wilde beaſts, threw themſelues deſperately vpon wounds, and vpon certaine, and fore ſcene death. So the formoſt falling, the followers began to flacke. And yet they fled not, but retired to the mount called *Olacrus*. I will out of Appian ioyne a third experience in the battaile of Antiochus againſt

Plutarch in
Emilio.

Appian. in Sy-
riacis. 109. B.

againſt L. Scipio, which I likewiſe touched before in this Chapter. As ſoone, as the Horſe, and Chaiors of Antiochus were put to flight by the Roman horſemen, and by Eumenes, his *Phalange* of foote being deſtitute of horſe, firſt opened, and receiued the light-armed, (that had all this while fought in the front) into the middeſt of it. Then after-ward againe cloſed. And when Domitius Scipio's Lieutenant, incompaſſed it round with horſe and light-armed, which he might eaſily doe, by reaſon it was thruſt vp into a thicke *Plinthum*; it was driuen to great diſtreſſe; being neither able to charge the enemy, nor yet to countermarch in ſo great depth, as it carried. It grieved them much, that their long experience nothing auailed them to annoy the enemy, and that notwithstanding they were ſubiect to arrowes, and darts at all hands. Yet, bearing out a multitude of pikes on euery ſide of their ſquare, they called the Romans to come to handy blowes, and ſtill made a countenance, as though they meant to charge, keeping themſelues for all that within their Ranks, as being footmen, and heauy armed, and the rather, becauſe they had to doe, with an enemy on horſe-backe. Beſides they were loth to breake the thicknes of their battaile, which forme they could not now alter. The Romans alſo, durſt not approach them, and come to ſword, fearing their experience in warre, and cloſeneſſe of array, and deſperation. But running about here, and there, plied them with arrowes, and darts, whereof none was throwne in vaine, ſulling amongſt a troupe ſo cloſely put vp together, that they could neither auoide, and decline any thing throwne, nor giue way, albeit they ſaw it comming. At laſt being weary, and irreſolute what to doe, they retired eaſily, with a threatening countenance notwithstanding, and in good order, and not deliuering the Romans of feare, who durſt not yet come neare, but fought to annoy them aloofe; till the Elephants placed in the Macedonian *Phalange*, being affrighted, and not to be ruled by their Gouvernours, troubled all, and gaue occaſion of flight: hitherto Appian. Out of theſe three examples, the truth of that, which Aelian ſaith, is to be ſcene, that is, that the Macedonian *Phalange* cannot be forced, or reſiſted by an enemy, (taking with all Polybius his caution) if it be in the right poſture, and figure, and haue ſuch ground, as is fit. The Romans the beſt ſouldiers of all antiquitie were repulſed by it at a ſiege, forced to retire in a battell, durſt not come neare it, after they had gained the field of the reſt of the Army. And the Conſull *Emilius*, a man that had ſerue much ſeruice, and fought many a battaile, and was one of the beſt Generalls of that time, confeſſed, he neuer ſaw ſo fearefull a ſight, as when he beheld the *Phalange* aduancing into the field, the bodies ioyned, the Targets ſerred, and locked together, darting out fire like lightning, the front rough with couched, and charged pikes, and armed with yron, and threatening preſent death to him, that durſt approach.

3 Occupying two Cubits of ground] We may not take it, as though the ſouldier betwixt file, and file had two Cubits, or three ſpace of ground. For we learned before that in locking vp the *Phalange*, the diſtance betwene man, and man in front was but a Cubit. But it is to be vnderſtood betwene ranke and ranke. For Polybius ſaith, that the ſouldier ought to haue roome for the uſe of his weapon, which cannot be, without granting him three foote behinde, the pike being ſome-times to be puſhed forward, ſome-times to be drawne backe, ſometimes otherwiſe handled, as occaſion of fight ſhall require.

The length of the Pike is 16 Cubits] Sixteene Cubits, which is twenty ſee Leo cap. 4. ſoure foote, is a great length for a Pike, and it veriſieth the words of Livy, 5. 3. & cap. 6. that the Macedonian Pike is vnwealdy, by reaſon of the length, and weight.

H 3

yet

b Polyen. lib. 2. in Cleonymo § 2. c Xenoph. hon de exp. edit. c. yr lib. 4. § 38. C. d Polib. l. 17. 764. A. e Polyb. l. 17. 764. A. f Leo cap. 6. § 39.

ye! doe wee read of pikes of that length. The ^b Aedessians had such. The ^c Chalybes pikes were about 15 cubits long. ^d But 16 was the length at the first, the Macedonians brought it to 14, which they tooke to be a sufficient length against the enemy, and easier for the Pike-man to beare and handle.

4 The space in charging betwixt the handes taking vp two cubits] Herein is a difference betwene Aelian, and Polybius. Aelian would haue no more, then 2 cubits lost in charging; ^e Polybius saith 4. are lost, and with Polybius agreeth Leo. But the cause of the difference arises out of the forme of the pike, and of the manner of holding it in the charge. If it be held at the butt end with the right hand, and supported toward the armed end with the left, as the manner in charging is, it cannot loose about two cubits, and Aelian is in the right. But if, in holding it, you set the right hand 2 cubits from the butt end, then must 4 cubits of necessitie be lost. Whereof 2 rest behinde the right hand, the other two are taken vp by the space betwixt both hands. Our manner of charging is at this day, to take the butt end in the right hand, and in so doing we loose but two cubits. But it seemeth our pikes are not made in that forme, they were in Polybius time. In Polybius age they had weight; his at the butt end to make the sharpe end the lighter, as the heauie pummell lighteneth the sword in handling. ^f This weight was called ^h secoma, as it were a counter-weight to the heauinesse, and length of the pike. Neither do I read any thing elsewhere then in Polybius, concerning the counter-weight of a pike. To the handle of an Oare, I finde in ⁱ Athenens, that lead was added, to make the part standing out from the shippe more light. But yet Polybius, and Aelians opinions may well agree, and in pikes that haue counterweights at their ends (the bold for charging being taken two cubits from the butt end) there may be lost foure cubits, where the other sort being held at the butt end it selfe, loose but 2 cubits.

5 The pikes of the other behinde, cannot reach to the first ranke] How shall they beare their pikes then ^k Polybius sheweth, what the manner was. Those ranks, saith he, that stand behinde the fifth, can helpe nothing to the fight in front. And therefore they charge not their pikes low, but beare them towards their forestanders shoulders, the points somewhat erected to secure the battaile from above, intercepting by their thicke lying the misliue weapons, which flying ouer the front, would otherwise fall vpon their heads, that are placed toward the reare. Polybius saith, the manner was, (neither to charge, nor order their pikes, but) to beare them forwards sloping towards the shoulders of their companions before. Test by bearing them so, what security they could giue from the misliue weapons, that came aloft, I cannot yet conceiue. An arrow, darr, or stone, vnlesse it hit iust on the middest of the pikes, would do as much, and sometimes more, harme by glancing, then if it had not touched them at all.

Some would haue the hinder pikes longer] The opinion of them, whom Aelian here speaketh of, hath little reason to ground vpon. For either the pike of them that come in the five ranks behinde, especially the two last, must exceede in length, or else the file-leaders pikes in shortnesse, both which are alike vnprofitable. If they bee too long, they cannot be wielded, if the too short, the enemy shall reach the file-leaders, and not the file-leaders the enemy. The measure of the longest pike was 16 cubits, which yet for aptnesse and vse was by the Macedonians reduced to 14. Say then the sixteenth ranke carrieth pikes of 16 cubits; two of the cubits according to Aelian, are taken away in handling, other ten by reason of the distance of the five former ranks. Foure cubits alone remaine, and reach ouer the front. If the file Leader in the front shorten his pike to foure cubits to make an even extention, he shall not come neere the enemy by ten cubits, who in pushing will reach home to him. For what length soeuer, is taken from the file-leader in front,

front, the same is giuen to the enemy, that pusheth with him. And hee shall bee able to wound the file-leader, and not the file-leader him, especially the pikes differing in so great a proportion.

6 The superordinarie Lieutenant of euery Syntagma] I haue before noted the dutie of a Lieutenant of the Syntagma, and it is here well expressed by Aelian. He; that desireth to see more touching the same, let him resort to Xenophons Cyropædia: lib. 3. 28. and lib. 7. 178. B. and to Leo, cap. 14. § 79.

The place of the light-armed, and the number of euery file.

CHAP. XV.

Thus much of ordering and marshalling the armed-foore. I will adde a word, or two, of the light-armed, or naked. ¹ The Generall is to place the light-armed so, that they be readie for all attempts of the enemy, sometime in front, sometime in flanke, sometime in the Reare, according to occasion or necessity. For our purpose let them be thus ordered: We will frame also of them 1024 files as many, as the Phalange of the armed contained; So that the first file of the light-armed be placed directly behinde the first file of the armed, and the second file behinde the second, and so the rest. ² Yet shall they not be sixteene to the file, but halfe so many, namely eight; so that in 1024 files there shall bee eight thousand, one hundred, ninety two men.

Notes.

¹ Hitherto all things concerning the arming, filing, embatteling, number, command, distance and precedence of the armed are declared; and likewise, of the arming of the light and somewhat of their place. Now followeth the filing, ranking, and place more exactly, and their manner of embattailing, with their seuerall bodies, and commaunds.

² The Generall is to place] I haue spoken somewhat before of the placing of the light. I will now onely adde a passage of Leo tending thereunto. ^a Leo saith thus, you shall range the Archers behinde the reate of euery file according to the number ^b 69. of the file, (that is foure light for twenty six armed, proportioning an Archer for euery foure armed. Or if it be needfull, you shall order them within the files, an armed, and an Archer. Sometimes without the wings of the battaile; that is within the Horse. Oftentimes without the Horse a little distance, with a few Targetiers, to defend the vitermost flanks of the Horse. And this is to bee done, when you abound in multitude of light-armed. But those, that vse small darts, and iaculins, and such like are to be placed, either in the reare of the armed, or in the wings of the battaile, and not in the middest. The slingers are alwaies, to bee set in the wings. Thus Leo placeth his light armed. But Aelian here (as before in the seuenth Chapter) designeth their place in the reare, but so, that hee leaueth it to the Generalls choice, and to the occasion of seruice to place them, as most bestifieth. Being set behinde, as Aelians order is, they must answer the armed in number of files, or be directed by the files of the armed for their standing; that is euery file of the light-armed is to order it selfe in a right

right line after a file of the armed in such manner, as the armed are before embattailed.

Ælian in the beginning divided the foote into three parts, Armed, Targetieres, and light-armed. To the armed he hath given place, and maketh the Phalange to consist of them, the light-armed he rangeth in the reare of the armed, what shall become of Targetiers? for he speaketh not a word of placing them. By that I read in Arrian I would think, they were placed amongst the light-armed, and next to the armed. First because Ælian saith, many number them amongst the light. Then I see the Hypaspists placed betwixt the Horse, and the armed in Alexanders fields, at Granicus, at Issos, and at Gaugamela; Lastly Leo in the passage before recited, when he placed the light-armed without the Horse, he ioyneth Targetiers with them, for their safeguard. Cyrus likewise placeth them next the armed in the reare; and after them the Archers.

2 Yet shall they not be 16.] The file of the light-armed is lesse in number, then the file of the armed. For if they should be 16 in file, the number being but halfe to the armed, they should not be able to make aboue 512 files, and breeding there by a disproportion both in placing, and correspondence one to another, not equall the length of the Phalange. Besides standing eight in file, and in the reare, their flying weapons will bee sent with more force against their enemy; In as much as the hindmost of them are neerer the enemy by twentie foure foote, which the last eight in a file of 16 deepe take up. And misse weapons, the lesse their compasse is, when they are sent against a marke, with more violence they pierce. As they hurt not greatly, if the distance be too farre, from whence they come.

The names of the bodies of the light-armed.

CHAP. XVI.

Their names and degrees are these. Foure files of light-armed are called ¹a Syntaxis of 32. men. Two Syntaxis ²a Pentecontarchy of 64 men. Two Pentecontarchies ³a Century of 128 men. In every Century ought to bee 5 Superordinarie men: an Ensigne, a Reare-commander, a Trumpeter, a Serieant, and a Crier. Two Centuries containe 256 men, and are called ⁴a Psylagy. Two Psylagies a Xenagy of 512 men. Two Xenagies a Systemma of 1024 men. Two Epixenagies a Stiphos of 4096 men. Two Stiphos an Epitagma of 1024 files, 8192 men. These ought also to haue 8 Superordinarie men, whereof foure should bee Epixenagies, the other foure Systemmatarchs.

Notes.

As the armed were distinguished, and seuered into diuers bodies in the Phalange, so are the light-armed, in whom there ought to be no lesse order, then in the armed. A multitude vndigested bringeth with it disorder, and confusion. Neither can any service be expected from them, who by apt diuisions are not cast into bodies fit for seruice. We haue before spoken of the names of the bodies of the armed, and noted, that they were not imposed with such propriety, that they could be applied to no other thing. At the first warre was made, and men fought (as wild beasts grapple together) led with furie, and rage, and not with skill: and he preuailed that was the strongest. Experience taught there were advantages in Time, in Place, in Order, in instruments of fight, in placing of men, and

in other circumstances. Hence sprung the Art of Warre, the diuers formes of weapon, and the figures of Battails. For the speedy framing whereof, the smaller bodies were invented, of which they consist. In building of a house, you first bring timber together, and other matter, and then of it frame walls, dores, windowes, rafters, beames, and the roof, which must be all conioyned together, before the fashion of the house will appeare: So in an Army the provision of men was first requisite, which being found, and brought together by Leauies, were armed, and after ordered into severall bodies; and these being compacted together, set out the frame and fashion of the Phalange. And as all things newly invented, stand in neede of names to ascerne them from other things; So names were giuen vnto the bodies not proper, and fit; but such as Military wits thought convenient enough to signifie the things they meant. I haue noted it before in the names of the Tetrarchy, Taxis, Syntagma, and other, and it will appeare againe in this Chapter.

But here I may not pratermit the curiositie of the Græcians in their appellations, and their plenty of speech, apt to giue diuersitie to things, that are diuers. For where there are bodies, amongst armed, and light-armed, which consist of the same number, and therefore, as it seemes, might well enough haue bene comprehended vnder one name, they notwithstanding to auoide confusion, and for perspicuities sake haue thought good to call them by sundry names. Thirty two armed men are called a Dilochi; 32 light armed are a Systalis; 64 armed are a Tetrarchie; 64 light armed a Pentecontarchie; 128 armed a Taxis; 128 light, a Hecatontarchie. Our tongue will not afford such variety. For albeit in common speech we distinguish the kinde of souldier, yet confound we the name of the body, and of the command. A certaine number of Pikes vnder a Captaine we call a company of Pikes; So many shot vnder a Captaine we likewise call a company of shot. The Captaines, one a Captaine of Pikes, and the other a Captaine of shot. A company of Curacers of horse, we call a troope of Curacers; as many Argoleters, a troope of Argoleters. The Commanders of either of them we terme Captaines, the one of Curacers, the other of Argoleteres. But let vs come to particular explication.

1 Asystalis] It commeth of Synistemi to stand together: and asystalis is a standing together; which word albeit it may be extended to any kinde of people assembled, and standing together; yet it is here appropriated to souldiers; and more particularly to 4. files of light armed, consisting of 32 men, 8 men going to the file.

2 A Pentecontarchie] The command of 50 men. And so it was used of old. But the Macedonians gaue 64 men to this command, and yet reteined the name, because it was familiar, and well knowne.

3 A Century] Ælian calleth it a Hecatontarchie, the command of a 100 men. The name was vsuall before the Macedonians time, and it conteyned 100 men. But the Macedonians gaue it 128 men. This was answerable to the Syntagma amongst the armed, and had the like officers. Yet whether it had a Captaine, or no, may be some doubt; the rather because Ælian in this Chap: nameth no Commanders, but Systrematarchs, and Epixenagies; and those he would haue super-ordinary. For my part, I thinke they had Centurions also. For as euery body of the armed had a head, so I would thinke it requisite also amongst the light-armed, especially seeing there was a Bringer-up, and other officers belonging to a Company; which vnto them had a Commander, would become vnprofitable. For if there were no Captaine, to whom should the Crier, or Trumpet, or Sergeant of the Centurie resort for direction? Adde, that the light were often drawne to the winges, to the front, or other places of service, which could not be done without Leaders. For to put a Systrematarch, or an Epixenagic to lead a Century, were to leaue the rest of the Centuries vnder them without a Commander. Besides, the

the Macedonians were very particular in their commands, and left no body without a head; which is the cause of the multitude of Commanders in the Phalange. But they are not here mentioned. No more are the ^a Commanders of the horse in the division of the bodies of the horse, and yet I thinke no man will doubt, but the horsemen had Commanders. Lastly, I finde in the Græcian historie, Captaines of the light-armed often named. Episthenes is said to be Commander of the Targetiers, in asight the Græcians had against the Persians. ^c Stratocles commanded the Cretan Archers in the returne of the Græcians out of Persia. ^d Eurybates Captaine of the Cretan Archers in Alexander's army was slaine by the Thebans at the siege of Thebes. ^e When Antiochus the Captaine of the Archers was dead, Ombrio was chosen in his place. Mention is made also in ^f Arrian of Clearchus the Captaine of the Archers. And when Ælian calleth the 4 Sytremmatarchs, and the 4 Epixenages superordinary (Εἰσακτοὺς) he might haue said as much of all the other Commanders. And he saith expressly of the officers of the Centurie, that they were superordinary (Εἰσακτοὶ).

4 A Psylagi] The word is a body of light-armed. Which word, if it were taken, as it naturally signifieth, is common to, and comprehendeth all the bodies of the light-armed, whereof Ælian speaketh in this Chapter. But here it is restrained to a body of light-armed, which compriseth 256 men, and 32 files, and so it is to be taken.

A Xenagic] That is, a command of strangers. Ælian before saith, that a Syntagma was by some called a Xenagic. I haue given my opinion there of the originall of the word, which I neede not to repeat here; This onely I will note, that of all the bodies of the light-armed, no one hath a common name with the body of the armed, but onely the Xenagic. And Ælian giueth also that body of the armed another name, calling it a Syntagma. The Xenagic hath in it 512 men, and 64 files.

A Sytremma] It signifieth a conglobation, or trouping together. Proper names are wanting for these bodies, and therefore such taken, as might at any hand signifie the thing meant. In continuance of time use hath gained a passage, and made them to be accepted as proper enough. The Sytremma containeth 1024 men, and 128 files. There is nothing to be found in Ælian of the Chiliarchie of the light-armed; Tet dosh^h Arrian mentioneth 2 Chiliarchies of Archers in the Army of Alexander.

An Epixenagic] A command above a Xenagic; As afterward in the command of the horse, there is an Ephipparchie above a Hipparchie. The word is improper and hard enough; but when it is received by use, what should we seeke for more? It containeth 2048 men, and 256 files.

A Stiphos] It is deriued from steibo, to thicken, and in penury of another name, this body of the light-armed is called Stiphos, because they are thickned, and thronged together. There is in it 4096 men, and 256 files.

An Epitagma] Is the last body amongst the light-armed. The signification of Epitasso is to place behinde. From thence commeth Epitaxis, placing the light-armed in the Reare, which word is after used by Ælian. Epitagma is deriued from the same fountaine; and it is called Epitagma, not of placing behinde (for sometimes they were placed before, sometimes in the flanke) but it was the best name they could giue to the whole light-armed. And yet it may be, that because all the light-armed in auncient time were placed behinde, the whole masse was called Epitagma, as being placed after the armed in the reare. The Epitagma hath in it 1892 men, and 1024 files, for so many light-armed attend the Phalange.

Eight superordinate men] Why these eight men should be superordinate more than the rest of the Commanders, I conceiue not yet. If Ælians meaning be, that these alone shall command the light-armed, historie and practise of auncient times convince the contrary.

a after cap. 10.

b Xenoph. de exped. Cyri. lib. 1. 270. D.

c Xenoph. de exped. lib. 4. 322. D.

d Arrian. lib. 1.

9. C.

e Arrian. lib. 1.

f Arrian. lib. 1.

23. B.

g Polyb. lib. 1. 47. B.

h Arrian. lib. 95. C.

after cap. 31.

contrary. Besides where he nameth foure Epixenagies, it agreeth with the number, that are in the Epitagma of light. But where hee addeth foure Sytremmatarchs more to make up the number of the eight Superordinate, it is hard to knowe, which foure hee meaneth, considering there are eight Sytremmas in the Epitagma.

Now because the files of the light-armed are in embattailing to be marshalled to the files of the armed, I thought good to set downe how the bodies of both agree, by comparing them together in files, not in number of men. For in number of men they cannot well agree, because the file of the armed hath more, then the file of the light-armed. And the number of the armed in grosse is 16384, of the light-armed but 8192. And I will first begin with the Sytstas, because it is the least body of the light.

The bodies of the armed,

A Tetrarchie
A Taxus
A Syntagma
A Pentecostarchie
A Chiliarchie
A Merarchie
A Phalangarchie
A Diphalangarchie
A Tetraphalangarchie

The bodies of the light-armed.

A Sytstas,	4	files.
A Pentecostarchie,	8	files.
A Heccontarchie,	16	files.
A Psylagie,	32	files.
A Xenagic,	64	files.
A Sytremma,	128	files.
An Epixenagic	256	files.
A Stiphos	512	files.
An Epitagma	1024	files.

The use of light-armed foote.

CHAP. XVII.

Darters, Archers, and all other, that vse flying weapons, are good to begin the fight to prouoke the enemy, to breake and shatter armour, to wound, annoy, and beate downe a farre off; to disaray the enemy; to repulse their horse, to beat in their light-armed, to discouer suspected places, and to lay Ambushes. Lastly these first vndertaking the Skirmish, and continuing it with the rest, and seconding them, and serueng⁸ for speedie, and farre off attempts, worke many, and great effects in fight.

Notes.

The arming, place, filing, bodies, and command of the light-armed are hitherto handled: Now followeth the use, and seruice they performe in the field. And first wee are to thinke of the body of an armie, as of the body of a man; that is compact of severall parts: Of which some parts are of more use then other, some being able to performe their function without the helpe of the other, some except the other help, can doe nothing to purpose of themselves. The parts of an armie are like. The armed are the strength of the field, and are the refuge for the rest in extremitie. The light armed with the armed, worke great effects (those which Ælian speaketh of in this Chapter, and many more) without them they cannot so much as maintaine a place in the field. And as Xenophon saith, Let them be neuer so many in number, yet dare they not stand or abide a fewe armed. In which respect, a place fit hath alwaies beene sought for their seruice, to secure them from the acceffe of the Horse, or of the enemies armed. Which place was either behinde

Xenoph. Cyrop. lib. 7. 189. C.

b Leo cap. 14.
§ 105.

binde the Phalange (as *Ælian* here would haue it) or else in the wings betwixt the Horse, and the armed, or if they skirmished loose before the front, and chanced to bee pressed with the enemy, they retired into the interualls, and conueied themselves behind the Phalange in safetie. *Leo* saith, if there be any place of strength, it will much helpe the light-armed. For after their flying weapons spent, retiring thither, they will be in more securitie, as a steepe rockie place, or the bancke of a riuer, or a high hill, or such other. Our stories report, that at the battaile of Agincourt in France 200 English Archers were bestowed in a meadow fenced with a deepe ditch; from whence they so gauled the French horse and foot, that they were a great helpe to the victorie. The like happened before at Poitiers; where that braue Prince of Wales eldest sonne of Edward the third, hauing to fight with the whole power of France vnder the leading of their King, gaue safeguard to his Archers, with hedges, and ditches, and other strenghts. So that the French horse hauing no accesse to disorder them, were overwhelmed with the tempests, and stormes of their arrowes, and such a victorie obtained by our nation, as might match the most renowned of all antiquitie. To say nothing of the inuention which *Henric* the fifth vsed against the horse of France for securing his Archers. The storie saith, he denised stakes of two yards long, and armed both ends with pikes of iron, the one to sticke into the ground, and the other to gall, and enter the horses bellies, in case they came to charge our Archers home. By means whereof he caried the famous victorie of Agincourt. This for the assurance of the light armed, when they come to fight, without which assurance, their seruice would be weake, and scarce worth the hauing. Their seruice then according to *Ælian* hath many particulars. And they are good to

c Arrian lib.

Prouoke the enemy] If the enemy be in a wood, a fenne, a hill, a fort, a towne, or other place of strength, that admiiteth no accesse, the manner hath bene to send out the light armie to shew themselves, and with a Br. uado to towle him out of his aduantage, and bring him into the field, where he may more easily be dealt withall. Examples are plentiful, but I will content my selfe with a Macedonian example. *Alexander* leading his armie against the *Triballs*, that had hid themselves in a wood, commanded his Archers, and Slingers to ruane out, and to shoote, and sling amongst the Barbarians to see, if he could towle them into the plaine. The Archers, and Slingers spared not to let flie, and the *Triballs* being wounded with arrowes, threw themselves out of the wood with all speed, to fall vpon the unarmed Archers. *Alexander* presently commanded *Philotas* with the Horse of vpper Macedonia to charge the right wing; on which part they cast out themselves furthest. And *Heraclides*, and *Sopolis* with the horse of *Bottiaea*, and *Amphipolis* the left, himselfe stretching out in length the Phalange of foote, & setting the rest of horse before the Phalange, led against the midst of the enemy. As long as it was but a skirmish, the *Triballs* had not the worst. But after the Phalange close ferred, came vp roundly to them, and the Horsemen charged them no longer with darts, but pressed, and ouerboare them with their horse, they fled thorough the wood to the riuer.

d Leo cap. 14.
§ 104.
Ciu. Decad.
5. lib. 2. 39. B.

To beginne the fight] *Leo* agreeth. If saith he, we haue light-armed enough, let them, before the armie ioyne, send their darts, and arrowes at the enemy, and after the fight of the armed is begunne, plie the flanke with their missiue weapons, that at ouce both their flanks may be assaulted. It hath bene and is now the ordinarie course to beginne the fight with the light-armed. And because wee shall read of no battaile almost wherein it was not so, I will forkeare examples.

e Liu. decad. 4.
lib. 8. 161. B.

To wound a farre off. The light seruie to great purpose, if the Generall desire not to come neere to fight, but seeke to annoy his enemy a farre off, without danger of his owne folkes. *Liu* telleth of *Cn. Manlius Vols*, that being to make warre against the Gallo

Græcians,

Græcians, that fled into the mountaines, and awaited the Romans there, and sought to defend themselves, by aduantage of the place, he prepared great plenty of darts, arrowes, bullets, and small stones for Slinges: and leauing his legionaries souldiers behind, led his light armed, against the enemy, that possessed certaine straightis, by which his armie must passe. After some fight the Gallo-Græcians being not sufficiently armed, to defend their bodies from the missiue weapons, the light-armed of the Romans forced the passage. And following them euen to the Campe, where their Companions came to their aide, they first droue them into their Campe, and after the Legionarie Souldiers comming up, they wonne it. I haue before rehearsed the historie of *Iphicrates*, who with his Targetiers (that came seldome to hand blowes, but plied the enemy with darts a farre off) ouerthrew and slewe a whole Moira of the Lacedemonians. The Acarnans, likewise with this kinde of fight, much incumbered *Agelilaus*, that made an excursion into their Countrey. The story is this, *Agelilaus* hauing taken a great prey, in the territory of the Acarnans, rested that day, where he had taken it, being busie in selling of it. In the meane time many Acarnan Targetiers assembled themselves together, where *Agelilaus* was incamped vpon the side of a mountaine, and with darting and slinging, they forced his Campe to descend to the plaine, themselves in the meane time being free from hurt. The next day *Agelilaus* led away his armie. The passage out of the place was straight, by reason of the mountaines lying about in a circle, which the Acarnans possessing, plied the Lacedemonians with darts, and stones, from the higher ground, and sometimes descending to the skirts of the hills, they pressed the armie so, that it could not move forward. And when the armed, foote, or horse, fell out vpon them, they profited little: For the Acarnans retired immediately, to their strength. *Agelilaus* perceiuing it would be hard for his armie to winde out of those straightis, so long as the enemy so hung vpon them; resolved to charge those on his left hand. For the ascent on that side was more easie, both for his horse, and armed foote. Commanding therefore, his men to charge, the armed (of 29 yeeres of age) first fell on; and the horse after them vpon the spurre. Himselfe followed with the rest. The Acarnans therefore, that were descended, and busie a darting, were quickly put to flight; and many slaine in seeking to remount the hills. But their armed foote, and most of their Targetiers, stood imbattailed on the toppe, and from thence both threw other missiues, and lanced lauelines, wherewith they wounded horsemen; and killed some horse. But being ready to be charged by the Lacedemonian armed, they fled, loosing some 300 in the flight. These light-armed then, as long as they can keep aloofe from the enemy, annoy them sore by wounding (as *Ælian* saith) a farre off: as soone as the armed come up, they are glad to quite their place, and saue themselves by flight.

4 To disarray] So long as a battaile remaineth in order, no victorie is gotten against it. Breaking of array, and disbanding, are companions of flight, and of forsaking the field. The armed, that are to endure the efforts of the light armed, must either keepe still their order, and suffer themselves, to be knocked downe, and slaine, as they stand, or else provide for themselves, by flight, or by yeelding. For the light-armed effect with their missiue weapons the one, or the other. An example may be scene in the Egyptians, in *Cælius* his battaile, who after the defeat of the rest of the armie, maintained yet the fight, and yeelded not to *Cyrus*, though he had now the victorie. *Cyrus* at the first charged their backs with his horse, and being not able to breake them, was faine to command his Archers, and darters, to shoote and cast their darts at them: whereby the Egyptians after many wounds, and losse of their people, were finally constrained to yeeld. A like example is before alledged of *Domitius* the Lieutenant of *L. Scipio*, who with missiue weapons alone forced the Macedonian Phalange to scatter, and take themselves to flight.

e Xenoph. hist.
Græc. lib. 4.
§ 13. D.

e Xenoph. Cy.
107. lib. 7. 178.

f Appian. in
Synacis 109. B.

5 To repulse their Horse] *The light armed alone, without a sure retreat to the armed, or else some place of strength, can doe little in repulsing of horse. I haue shewed before in the ^b exploit of Crassus into Persia, how the lightarmed were beaten in by the Persian horse, and by the shew of wounds, they received, and with their feare, discouraged the armed. The like happened in ^c Antonies retreat out of Persia, the lightarmed being faine to shroude themselves from the Persian horse within the Phalange of the armed. Be they neuer so many, without some such assurance the horse will soon overrunne them; having this assurance their seruice much afflicteth horsemen both in wounding them, and in killing their horse. Therefore ^d of ancient time it was vsuall to mingle horse, and light armed together. For the enemies horse so charged, cannot be able to resist both. A notable example is in ^e Hirtius: Cæsar, saith hee, hauing a iourney in hand, and but a small number of Horse, and legionary Souldiers, was in his way serpon by the enemye abounding in store of Horse, and of light armed Numidians amongst them. And when the Souldiers of Cæsar fell out to charge, the enemies horse galloped away, and the foote stood fast, till the Horse with a full carreare returned to the rescue. This kinde of fight troubled Cæsar much; and would haue troubled him more, had hee not recovered hills, that were not farre of, and by that meanes shaken of the molesting enemy. And for repulsing horse there is no better meanes for the armed foote, then with the light armed to line that part of the battaile, where the horse shall be about to giue on.*

6 To beat in the light armed] *The light armed being nimble and quick, and seeking alwaies aduantages by changing of ground, can neuer be forced by the armed foote, (who are charged with heauie furniture, and by reason thereof can make no speed) to seeke succour in the battaile of their armed. Either they must be beaten in by the horse, or by the contrary light armed, as Ælian hath heere. The Horse are commonly to encounter with Horse, and the light-armed with light-armed, amongst whom the greater number preuaileth, their skill, and armes being alike. For the fight being a farre of, many will sooner wound, or kill a few, then a few many, saith ^f Xenophon: If the fight bee at hand the better armed, or better minded will driue the other out of the field. The ^g Roman Horse, and the light-armed, were too hard for the Macedonians, and chased them to their Campe. And that happened by reason their armour was fitter to close, and to fight at hand. So our Archers at the battaile of Cressly compelled the Genua crosse-bowes to forsake the field, the english bowe being better in vse, then the Genua crosse-bowe. When they haue made the contrary light armed to quit their place, they are at liberty themselves to serue, where most aduantage may be had of their seruice.*

7 To discouer suspected places, and lay ambushes] *Suspected places are such for the most part, as ambushes are laid in. Ambushes are of two kinde, being laid either to endamage the enemies battell in the field, or to hinder, and disapoint his march. The places, such as are removed from sight, and had neede of speciall discouery. As woods, mountaines, Forrests, rockes, banckes of riuers, caues, hills, hollow, and deepe waies, and the like, The most part of which are rough, and intricate, and scarce passable for the heauy armed, and horse. But the light armed, that are not incumbered with weight of armes, able quickly to aduance, or retire, are fittest to lie close in such places, or to search if the enemy be lodged there. For the first kinde of Ambushes wee read, that both heauy armed, and horse haue bene imployed. The warres of Anniball in Italy afford plenty of examples herein. For the other, which is to beset or discouer waies, there are none so fit, as the light armed, whose quicknes, and expedition, giue them aduantage to assault their enemy with their misseue weapons, though the ground be neuer so vnequall, and meanes to view any place suspected without almost any danger of their owne.*

^b Plutarch, in Crasso.

^c Plut. in Ant.

^d Liu. decad. 4. lib. 1. 16. A. B.
^e Hirtius de bell. African.

^f Xenoph. Cyrop. lib. 2. 39. E.
^g Liu. decad. 4. lib. 1. 16. B.

8 For speedy and farre attempts] A beuie armed man is not fit for farre or sūdaine attempts; he is armed for a firme and stedfast fight, and not for concursations. Alexander, whensoever he was to use expedition, tooke with him the horse and light-armed, leaving the armed to come after. ^a So did he, when he oppressed Clytus, and Glau-^a Arrian. lib. 1. cias in their campe. ^b so when he possessed himselfe of the streights of Cilicia; ^c so in preventing of the burning of Tarsus; ^d so in seeking to take the straights of the Vxians, ^e and the gates of Peria; ^f and the rocke of Aorne. The same hath bene the manner of other Generalls, as I haue noted in other places. For when Celerity is requisite, who so fit to be imployed, as they who haue nothing to hinder their speede? The Targetiere had but a light target, and a sp. are; the lightarmed but their armes. And what are they? bowe, and arrowes, darts, and slings, which haue no weight in them. ^g Which was the reason also, that in victory they were imployed in giuing chase to the enemie, that had lost the field. The armed used to follow in good order of battell, the slaughter, and execution was deliuered to the light armed, and horse. Wherein notwithstanding the counsell of Iphicrates was held good; take heede (said hee, to his light armed) of ambushes, and spare not to presse hard vpon the reare of those, that flie, till you come to riuers, or straights, or ditches. For it is dangerous in such places to hinder the enemies flights, least feare turne into desperation.

The fashion of Horse-battailes: and first of the Rhombe, the Wedge, and the Square.

CHAP. XVIII.

Those, that haue written before mee, haue diuersely framed Horse-battailes, some of iust squares, some longer in flanke, then in front, some like a Rhombe, some like a Wedge, but none of them haue (if I may speake freely) expressed fully their owne conceits. Therefore to make all things cleere, and better to bee vnderstood, I will set downe the seuerall figures of each seuerall kinde.

¹ It seemeth the Thessalians whose power was great in Horse, were the first, that used the kinde of battaile ² fashioned in forme of a Rhombe (the inuention whereof is attributed to Iason) as fittest for all encounters; The Horsemen thus ordered being ready to turne their faces euery way with speede, and not easie to bee surprised in flanke, or in the Reare. Because the best men stand in the flanke, and the Commanders in the Angles, as namely the Captaine of the troupe in the front, and in the right, and left Angles those, that are called Flanke-commanders, and the Lieutenant in the Reare-angle.

³ The Scythians, and Thracians haue used Wedges, and likewise the Macedonians by the ordinance of King Philip. For this kinde of battaile was held of more exact vse, then the square, because the Commanders are placed in a circle; and consisting of a narrow front, it maketh readie passage thorough any distance, and an easier wheeling and returning to the first posture, as hauing no such troublesome windings about, as hath the Square.

⁴ The Persians, and Sicilians, and most Gracians made choice of Squares, being of opinion they were more easie to frame, and fitter for ioint-mouing of the Horse, and more effectuall in vse. For they are sooner in order being digested

into files, and ranks, and in this order alone all the Commanders fall vpon, and charge the enemy with one maine force. Those are best *Squares*, that double the number of the length to the number of the depth. As when there are eight in length, and foure in depth, or tenne in length, and five in depth. These in number are of vnequall sides, but in figure foure *Square*. For the length of a Horse from head to taile compared with his bredth requireth more men in rank, then in file [to make vp the *Square*] Some allow thrice as many in length, as in depth, and thinke by that meanes a perfect *Square* may be formed: because for the most part, the length of a Horse seemeth thrice as much, as the bredth betwixt his shoulders. Therefore they giue nine in front, and three in flanke. For a multitude of Horsemen yeeld not the same aduantage behinde, that foote doe, when in the depth of the Battaille they iointly thrust on; in as much as the Horse helpe nothing to the settlednesse of fast resistance, being neither able to thrust those forwards, that are before, nor yet to linke, and knitte with them, and so to make one weight, as it were, of the whole body; and in case they presse vpon the foremost, by disordering, and distempering their owne Horse, they annoy themselves more, then the enemy. Therefore it alwaies falleth out, that when there are as many Horse in length, as in depth, a *Square* of number is made, but the sides of the figure are vnequall, the depth exceeding the length in proportion: but when the figure of the Troupe is *Square*, the number of the sides and front, is vnequall.

Notes.

In the second Chapter of this booke, the armie was diuided into two kindes, footemen, and Riders. Footemen againe into three, armed, Targetiers, and light armed. Of these three is hitherto treated. Riders follow, who either vsed Horses, or Elephants. Horses either alone, or else in Chariots. Of these *Ælian* treateth generally hereafter. For the arming, and place of Horse in the fildes, hee hath sufficiently spoken already. The following discourse is: First, of the manner of embattailing horse (wherein he setteth downe the diuersity of vsage in ancient time) Then of Chariots, and lastly of Elephants. ^a That a horse is a kinde of beast, that loues man, and is most faithfull vnto him Pliny testifieth. The use of him is for carriage, and for seruice in the field. And in the seruice of the field an armie without horse, is in a manner no armie. Iphicrates (as I haue said before) comparing an armie to a mans body resembleth the horse to feete. And as the body hath no power of mouing, or rather remouing, the feete being lame, or taken away, so is the armie slow, and unfit for expedition, that is destitute of horse; and may be well resembled to those beasts, that creepe vpon their bellies, whose greatest hast is with little speede. The horse do great seruice in the field of themselves alone; and are principally employed in matters that require quicknesse in dispatch. Therefore are they fit for discoveries, either of the enemies country, or of his campe, or of his marche, or of other things, whereof the Generall desires to haue notice. And not for discoveries alone, but to spoile, and destroy, whatsoever the enemy hath growing, to make prey of his Cattle, burne his houses, kill his people, surprize his places of strength, and to imbarre him from doing the like to vs; to bring and conuay provision for our Campe, to shut in the enemy, that he goe not out his campe for like causes, to hinder the enemies march by falling on the reare. Briefely all expeditions of celeritie are for the most part deliuered to the horse alone. Especially as long as they are in such places, as giue them liberty to go on, or retire at their pleasures. Yet are they often ioyned with the light armed, as I haue shewed. They often ioine likewise

^a Plin natural.
histor. lib. 7.
cap. 56.

likewise with the armed. ^a And if they may come to charge the enemies battaille in the flanke, or reare, at such time, as our armed charge in front, they endanger all. But for employment alone against the armed foote many examples of former times shew, how weakethere force is. ^b And how little they preuaile: (especially against armed, that are practised in fight, and resolute Souldiers) The examples I haue quoted in the margin make the matter cleare. For further confirmation I will set downe Xenophons opinion, which all be it, it were deliuered concerning the Persian horse, that came against the armed foote of the Grecians in their return out of Persia, yet the reason stretcheth to all horse in generall. His words sound thus: ^c If any of you taint in minde (said he to the Grecians) because we haue none, the enemy many horse, let him consider, that ten thousand horse-men are no more, then ten thousand men. For no man was euer slaine in battaille by bying, or stroke of a horse: Men they are, that performe; whatsoeuer is done in fight. As for vs (the foote he meaneth) our mounting is much more firme, and stedfast then theirs. They hang vpon their horse, and are in feare not onely of vs, but to be shaken of and throwne to ground. We contrariwise haue stable footing, and shall be able both with great assurednesse to strik; and direct our aime with more certainty. One aduantage the horse-men haue, they may more securely runne away. Hitherto Xenophon. And so much is summarily spoken of the seruice of horse.

The Thessalians, whose power was great in horse] The Thessalians inhabiting about the mountaine Pelus were the first, that fought on horse-backe, and were therefore called Centaures; When they watered their horses in the riuer Peneus, the horse heades stooping to drinke made the vnskilfull multitude, who saw the bodies of men ioyned to the shoulders of the horse, conceiue, that the upper part was man, and the neither Oxe. For it should seeme, horse were not so well knowne then, as Oxen, with which they laboured and plowed their land. The Poets therefore fained, that they were monsters compounded of two diuers natures, man and oxe, or bull; and that Centaurus, the beginner of the race was begotten by Ixion vpon a cloude, which was figured like Iuno. Howbeit Seruius giueth a better originall of the name, saying, that certaine seruants of a Thessalian King seeing their masters Neate, raging with the Brinse (a flie that biteth cattell) got a horse backe, and pricking them with goades, reduced them to their stables; and that they were after called Centaures, *Para kentein tous taurows*, of pricking the neate. The great Etymologicon giueth yet another beginning of the name. For where I haue said that Centaurus was begotten by Ixion vpon a cloude, which was figured like Iuno, with whom Ixion was in loue: The Etymologicon saith, the sonne of Ixion, and of the cloude was called Centaurus: *Apo tou ton patera autou kentein ten auran*. But ^d Diodorus Sicul. reporting the historie of the Centaures, speaketh not of Centaurus, the father of the race but saith notwithstanding, that they were bred of a cloude, and that the Nymphs brought them vp, and that they were the first horsemen, and therefore called *Hippocentaurs* which gaue occasion to the fable; that they had two natures. It is generally agreed, that these Centaures were Thessalians, and that they were the first horsemen, that are mentioned in any history. And as they were the first, so by reason of their long practise ^e they were accounted the best, the most valiant, and the most expert horse-men of all Greece, euen to the time of Philip sonne of Amintas King of Macedonia, who conquered all Thessaly (saith ^f Iustin) not of desire to make himselfe rich of the prey of that Countrey, but to winne to his armie the strength of the Thessalian horsemen: Whose seruice he vled afterward in all his war. Neither did they lesse seruice to his sonne ^g Alexander, in whose greatest battailes their vertue clearely appeareth, and is especially commended by histories.

^a Diod. Sicul.
lib. 16. 512.
^b Pol. lib. 3.
266 A. B.
^c Hirtius de
bell. Afican.
Xenoph. de
exped. Cyr.
lib. 3. 309. B.
Plur. in Anton.
Appian in Par.
164.
^d Xenoph. de
exped. Cyr. lib.
3. 302. B. C.

^d Diod. Sicul.
lib. 4. 189.

^e Xenoph. hist.
Graec. lib. 7.
644. D.
^f Iust. lib. 7.
633. C.

^g Diod. Sicul.
lib. 17. 573.
& 594.
Plurarch. in
Alexand.
^h Plur. in Pymn.
1115.

e Plutarch. in
Agessilao.
Xenoph. Hist.
græc lib 4.
518. A.

thus also, principally by their valor, put the Romans to flight. * Agessilaus returning out of Asia towards his Countrey led his armie through Thessalie, and being much incumbered in his march by the Thessalian horsemen, that were his enemies, hee charged them and overthrowed them, and pleased himselfe marvellously therein, because with troupes of horse, which himselfe had raised, and disciplined, hee had overthrowed the Thessalians, that were (saith Xenophon) so highly renowned for horsemanship.

2 Fashioned and forme of a Rhombe] There are three kindes of horse battailes mentioned by Aelian, the Rhombe, the Wedge, and the Square. And the square is either a tust square, or longer in flanke then in front, or in front then in flanke. The Rhombe was the inuention of the Thessalians, and in that forme they usually fought. But where he maketh lason to be the inuention of it, he afterward expoundeth his owne meaning, attributing the inuention to Ileon the Thessalian (from whom also it was termed Ile) but the chiefe practise to lason. Euclyde defineth a Rhombe in this sort:

b Euclyd. lib.
1. definit. 31.

* A Rhombe is a square figure, that hath the sides equall, but the angles not right. That is, the foure sides of the square are of one, and the same length, but the points, which make the angles, are two of them stretched out in greater length, and become more sharpe; two of them brought narrower together, and made more blunt, then the right angles of a Tetragonall square. See the figure. It is the same figure in a battaile; that at this day we call the Diamond battaile, which is (sometimes practised amongst the foote for shew, and exercise sake, but amongst the horse I haue not seene it practised. And as the square goeth to charge with all the souldiers, that stand in one of the sides, that is with the front, (for the front is but a side of the square) so the Rhombe chargeth with one of the points, which is the front of the Rhombe. Whether of them is of most use in the field, I am not to determine. For the square standes the practise of our daies, besides the usage of the Persians, Sicilians, and most Græcians, as Aelian saith. For the Rhombe the Thessalians alone (which notwithstanding were acknowledged the best horsemen of Greece) vntlesse we allow the Wedge for a parcell of the Rhombe. (a Rhombe being but a double Wedge; as making two wedges, when it is divided in two) and then haue wee for the Rhombe not onely the Scythians, and Thracians (both nations very good horsemen) but King Philip Amintas sonne, and Alexander the great, and his successours. Either of both formes haue their reasons. For the squares they, that vse them, held opinion (as Aelian saith) that they were easier to frame, and siter for ioint mouing of horse, and sooner in order of file, and ranke, and that the Commanders iointly charged the enemy, which in no other forme could be done. For the easinesse to frame I see no great difference, onely custome, and vse, must in euery forme, yea in the squares themselves make the horseman ready to know, and take, and keepe his place. The same may be said for the ioint mouing of the horse. Now to file and ranke is common to the square with some Rhombes, and as soone done in the one, as in the other, the number of the troupe being once knowne, and euery horseman hauing his place assigned, and the forme resolu'd vpon, into the which is must be cast. For where there are 4 kinds of Rhombes, one, that fileth, and ranketh; another, that fileth, but ranketh not; the third, that ranketh, but fileth not; the last that neither fileth, nor ranketh (as Aelian teacheth in the next Chapter) The first will finde no more difficultie, of filing, and ranking, then the square, the two next albeit the one ranke not, the other file not, yet the want of filing, or ranking hindereth no more the readinesse of framing them, then the vse of filing, and ranking helpeth the other. The fourth is rather curious then profitable, as I take, neither doe I finde example of it. And it may be truly affirmed of it, that the square is much easier to be fashioned. We shall haue occasion to speake of the last three in due place. Touching the ioint falling on of the Commanders, I confesse the advantage is great. For when the best men (such as the Commanders ought

to be) altogether fall vpon the enemy, they are very like to put hard to them. And as it is a great part of skill to bring many hands to fight, so is it no lesse, to bring the best hands to fight. Many hands make light worke, the best hands sure worke. Now for the Rhombe Aelian alledgeth these reasons. First, that it is fittest for all encounters, because the horsemen are ready so turne their faces euery way with speed. Then; that they cannot be surpris'd in flanke, or reare, hauing the best men in their flanks, and the Commanders in euery point of the Rhombe. And cannot the square turne faces euery way? They can, but not with the same advantage. For the Rhombe, which way soeuer faces are turned, remaineth in the first forme. And whether it be to the right, or left flanke, or to the reare, it keepeeth still a euene sides, and the men of most seruice in the sides. Besides that one point alwaies affronteth the enemy. Not unlike a Calthrop, which howsoeuer you cast it to the ground, hath one point bearing right up to wound the horses feet: But the square in turning faces to either flanke altereth the forme of the front: In a broad square, the front at the first was longer than the sides, faces being turned to either flanke the sides become longer, than the front; contrariwise in the Herse battaile. Besides in such turning of faces the square leaseth the advantage of embattailing the Commanders, that stood in the front, standing now in one of the flanks, and being not able to charge the enemy iointly, (the greatest advantage of that forme) and so the front being without Commanders, is subiect, and in danger of surprize, where the Rhombe, which way soeuer faces turne, hath as many Commanders in the front, as at first. But let vs take the horse square in full strength with all Commanders in front; whether shall that forme be better, than the Rhombe? I dare not affirme it. For where there are two kindes of fight; One with maine force, the other with sleight, and Art; in the first I will preferre the square, in the last the Rhombe. The square for slaughter and violent overthrowing; the Rhombe for piercing, and artificiall breaking the enemies battaile, which last amongst great Commanders hath alwaies bene accounted the best kinde of winning. In the square all the Commanders fall iointly vpon the enemy, and because they are supposed to be the cheife of the Army, in all likelihood they will overthrow the foremost, and slay many. Yet by reason of the length of their fronts, they sticke man to man, and can make no farre entrance, and the victorie hangeth doubtful, till they haue slaine the most of them, that resist, and so make the rest to flie. The Rhombe contrary wise, being narrow, and pointed in the front, first forceth a passage with the point, which maketh way to the rest that follow, and then without great labour piercing further, and further, breaketh the aduerser battaile, & disperseth, and putteth them to flight, and after doth execution at pleasure. Neither can I make a siter resemblance; then by comparing the 2 figures, one to an axe, the other to a wedge, both instruments used for diuiding solid masses of wood. For the axe, albeit sharper, than the wedge, yet hauing the edge drawn out in length, can not by any strength be driuen farre into the wood; but by doubling many stroaks, and by much labour commeth at last to diuide it. The wedge contrary wise, though not so sharpe, being once entred, insinuateth it selfe more by litle, and litle with the narrownes of the point, and maintayning the hold it first got, at last forceth it asunder, though it be neuer so tough. So is it in the square, and Rhombe: whereof the square beginneth, and endeth with violence; the other useth first cunning, and mildenes, as it were, to enter: being once entred renteth a peeces, and disparteth all that standeth in the way. The manner of our times alloweth not of Rhombes; Experience of former times highly prized them. I will insist vpon the Thessalians alone, who are accounted the inuentioners of the Rhombe, & fought alwaies Rhombe wise. Polybius had seene their seruice, and bene Generall of the Horse in his owne country, and therefore able to iudge. Egineth this censure of them; * that in troupes, and being imbattai-

a Polyb. lib. 4.
278. B. C.
led,

led, they could not be resisted: to fight man to man in single combat, they had neither will, nor courage. What then should be the reason, they should be so powerfull in troups? No other, then the forme of their imbattailing, which forme was the Rhombe here mentioned by Elian: In this forme they commonly beat the Græcian, and Persian squares, and got the reputation of the best horsemen of Europe.

3 The Scythians and Thracians vsed the wedge] The Rhombe is of 4 sides, the wedge but of three: and halfe a Rhombe maketh a wedge, as will be shewed in the next Chapter. The wedge was vsed by the Scythians, and Thracians, and whether King Philip of Macedonia borrowed it of them, I am uncertaine. But I rather incline to thinke, that his Theban Master taught him as well the wedge, as other formes of battailes. The cause of my coniecture is, for that I finde that his fellow scholer Epaminondas beat the Lacedemonian horse at Mantinea in that forme. Xenophon recounteth the storie to this effect: The enemy (they were the Lacedemonians) ordered their horse like a Phalange of armed in depth, without mingling foote with them: But Epaminondas made a strong wedge of horse also (for before he tells the Theban armed were cast into a wedge) and ioyned some foote with them, conceiuing after he had cut in peeces the horse, he should not misse of ouercomming the other forces of the enemy. And so going to charge, he was not deceived of his hope. Thus Xenophon. Of ioyning horse and light armed together, I haue spoken before: And that they were light-armed, that Epaminondas ioyned to his horse. Diodorus Siculus sheweth. By Xenophon then it is plaine, that not onely the Scythians, and Thracians, but the Græcians also, when they thought it convenient, vsed the horse-wedge, and that Epaminondas ordered both foote, and horse in a wedge. And considering King Philip was brought up in Epaminondas as his Fathers house, and made partaker of the learning wherewith Epaminondas was instructed; it is like in erecting a new military discipline amongst the Macedonians, as he tooke many other things from the Græcians, so he borrowed this forme, having first seene the notable effect thereof at Mantinea.

Now Elian bringeth reasons, why the wedge was holden better than the square. Let me with leave adde a word or two why I take it to be better than the Rhombe. And first it cannot be denied, that the wedge hauing the same manner of disposition that the Rhombe hath, that is a front ending in a point, where the Captaine standeth; two points of the two flanks, where the flanke-commander stands, the Lieutenant in the reare, and the best men in the flanks, but it must be as powerfull to open the enemies battaile, as the Rhombe is. Then it hath this advantage of the Rhombe that it bringeth more hands to fight. For let the Rhombe and wedge be framed of an equal number, the wedge in figure resembling the forepart of the Rhombe must haue the horse, that should be ranged in the reare of the Rhombe, orderly couched within the 3 sides thereof: where by both the number of the horse in the sides is increased, and the bulke of the body betwix flanke and flanke enlarged. And seeing both the Rhombe and the wedge goe to the charge with the point of their front, the wedge both hath the property to pierce, and enter the enemies battaile by art, and sleight, as well as the Rhombe, and doth it with more strength, because of the great number of hands in the sides, which all come to fight. Ioyned, that the hinder part of the Rhombe serueth onely to auoide surprizes, and worketh nothing in charging. For after the two flanke points are entred, the rest of the Rhombe growing narrower, and narrower toward the Reare, falleth further off from the enemy, and is content onely to follow the way, that was made to hand by the front and flanks; without being able to strike a stroke; especially if it preserve the order it ought to keepe: whereas all parts of the wedge are effectually, the point to enter, the sides euen to the flanke corners, where

b Diodor. Sic.
lib. 16. 570.
c Xenoph. hist.
Græc. lib. 7.
446. B.

d Diod. Sicul.
lib. 15. pag. 502.

where the Reare endeth, to dispart and disscuer; and finally to disorder the enemy, whereby the victorie ensueth. And if we may rely upon authority, the authority of King Philip will sway much for the wedge. For unlesse he had held it better than the Rhombe, hee would not haue chosen, nor accustomed his Macedonians to it, nor Alexander after retained it, if he had not bene of the same opinion. Neither did the euent acceue them: for almost in all battailes their horse thus disposed caried away the victorie. But, as I before noted, neither Rhombe, nor wedge haue found grace in the eyes of the great Generalls of our daies, nor can we tell what to insist upon, till experience hath taught, how well these formes will agree with the weapons, and seruice of our moderne warrs.

4 The Persians made choice of squares] The square is the third, and last forme of horse-battaile that Elian mentioneth; whereof there are three kinds; one with a larger front, then flanke; another with a larger flanke then front; the third, with front, and flanke equall. All these three were vsed amongst the Persians, and Græcians. For two of the first, Xenophon may witnes. When Agesilaus, after Tissaphernes (the King of Persia's Lieutenant in part of the lesser Asia) had broken truce with him, made an incursion into Phrigia, Xenophon telleth, that the rest of his iourney was without impediment, till he came not farre from Dasycium. There when his horsemen galloped to a hill to discouer the country, by chance the horsemen of Pharnabazus (another of the King of Persians Lieutenants) being about the same number that the Græcians were, and sent by Pharnabazus vnder the command of Rathynus, and Bancus his bastard brother, galloped vp the same hill, and discouering one the other no further of, than two parts of a furlong, at the first they stood still; the Græcians ordered Phalange-wise 4 in depth, the Barbarians making their front 12 in length, the depth many more. Afterward the Barbarians began first to charge. when they came to hands, all the Græcians that ioyned, broke their stanes. The Persians hauing Corneil darts killed some 12 horsemen, and 2 horses. Hereupon the Græcians fled. But when Agesilaus came with the Armie to the reskew, the Barbarians againe forooke the field. The Persians then vsed a square longer in flanke, then front: The Græcian a square longer in front, then flanke. But which of the three squares is most to be esteemed Elian sheweth in the words following, saying those squares are best, that

h Xenoph. Hist.
Græc lib. 3.
498. D.

5 Double the number of the length, to the number of the depth] What the length, and depth in a battaile are, we haue seene before. Yet to vnderstand Elian the better, let vs repeat, that the length of a battaile is the extension of the front; the depth the extension of the flanke. To double then the number of the length to the number of the depth, is to place twice so many men in front, as in flanke. As for the purpose, 6 in front, 3 in flanke; or 8 in front, 4 in flanke; or 10 in front, 5 in flanke. And that this was the manner of the Lacedemonians appeareth by the Oulamos, or horse-trope instituted by Lycurgus, which was figured Tetragonally with 4 equal sides, and contained in it 50 horse. Now that it could not be a square of number, that is, to haue as many horse in flanke, as in front may hereby be shewed, because no square number will make 50. The nearest is 7 times 7, which amounts to 49. But proportioning the number of the length double to the number of the depth, that is 10 in front, and 5 in flanke, euen 50 will arise. So that the horse troupe of the Lacedemonians had the number of the length double to the number of the depth, and made a square in the equality of measure of the sides, not in number, which is the Tetragonall figure, whereof Plutarch speaketh. And where Xenophon (as I haue alledged before) reporteth that the horsemen of Agesilaus were but 4 in depth, it hindereth not this truth. For, as I noted before, the ordinary array of the Lacedemonians foote was 8 in depth. Yet did Pausanias the Lacedemonian

i Plutarch. in
Lycurgo.

King

King cast his men into a deepe Phalange against Thrasibulus. Other examples I have al-
 leged in the same place touching the same matter. Besides this appeareth to be, but a cu-
 muluous fight either of the parties comming suddainely in the sight of the other, and
 going presently to charge, before they could haue time to alter the order they then were in.
 And so say the horse troupes of the Lacedemonians ought to haue bene but 4 in depth,
 it must thereof necessarily follow that they were 12 in length, which yet will come: (short of
 50: 4 times 12 makes but 48. Indeed ^k Leo holdeth opinion, that in a horse battaile, the
 depth ought to be no more than 4. I will set downe his words as neare, as conveniently I
 can english them. The depth, saith he, or thicknes, as it was of ancient time limi-
 ted, is sufficient, if it be of 4 horse in euery troupe; because in horse a greater
 depth will be idle, and to no purpose. For they cannot, as foote doe with their
 thicknes, thrust one an other forward from behind; and so the formost, will they,
 or nill they, are forced to goe against the enemy. And this is done amongst foote.
 But the horse can not thrust forward those, that are before them, nor the file-leaders
 that stand in front, be seconded in that kinde by the rest, that stand in depth after
 the fourth man. For if they be *Lancers*, the first ranke cannot reach with their
 launces to the front. If *Archers*, they shall be faine to shoot aloft for feare of
 hurting their companions before; and so their arrowes serue for no vse, after fight
 is ioyned. Therefore is the number of 4 sufficient in depth, as I haue said. This was
 the opinion of Leo. To which I cannot absolutely assent; vnlesse he had giuen 8 for the
 front of his troupe, and so made it of 4 equall sides in figure, not in number, as *Elia*n
 requirerh to be done in the best squares. For the reason of launces not reaching to the
 front in the first ranke, reacheth not home to the reason of warre. *Elia*n before hath de-
 clared, that the pikes of the seuenth ranke reach not to the front of the Phalange. Yet
 no man will thereof inferre, that the Phalange ought to be but 6 deepe. Yea but the foote
 that come after, helpe the formost, seconding them, and thrusting them on with the weight
 of their bodies, which the horse can not doe. This must be granted to be an advantage, that
 foote haue aboue horse in depth. Yet are there other reasons also of giuing depth to a Pha-
 lange: In the order whereof two considerations concurre; one of offence, the other of de-
 fence. The reaching of pikes or horsemens stauers ouer the front is good for offence, that is
 to annoy the enemy in the shooke: likewise the thrusting on of those that come behind, ser-
 ueth with the violence to make them giue ground. A reasonable depth is for defence, in as
 much as it defendeth a Phalange against the indeuour of the enemy to breake it a sunder.
 And as it is a fault to make it too deepe, so is it likewise a fault to make it too shallow. Too
 much depth narroweth the front, and giueth easie meanes to the enemy to incompasse, and
 over-front it. ^l Too much shallownesse on the contrary side maketh it weake, and ready to
 be broken, and disseuered by the enemy, and giueth a passage thorough, and meanes not
 onely to incompasse the front, but at the same instant also to assault it behind, and so utterly
 to defeat it. So that the reasons of Leo reach not home, as I said, there being other cau-
 ses of thickning a horse troupe besides reaching of Launces to the front, and ioint thru-
 sting on of the horse comming behinde. And where Leo speaketh but of 4 horse in
 depth of a troupe, Polybius saith plainly that being ordered for fight, they had for the
 most part 8 in depth; Polybius a man which liued in the times, whereof Leo speaketh,
 and had bene Generall of the horse of the Achæans. Besides Leo seemeth not a litle to
 differ from himselfe. ^m For in his seuenth Chapter, he writeth after this manner: If
 there be many horse (that is aboue twelue thousand) let the depth be of 10. If
 but few, let it be no more than 5. In squares therefore I hold *Elia*ns proportion best,
 to double the number of the front, to the number of the flanke; and as the number of the
 troupe ariseth (for horse troupes are not alwaies of one number) to inlarge the length of
 the

k Leo cap. 12.
9.40.

l Leo cap. 14.
§. 108. 109.

m Leo cap 7.
§ 31. & cap. 14.
§ 70.

the front, and the depth of the flanke proportionably one to another.

6 When there are as many horse in length as in depth] I noted before in the ninth Chapter, that there were two squares of equall sides, the one of number, the other of figure; which two squares differ in this, that the one maketh vnequall sides in the shape of the battaile, the other equall. The first at this day, we call a square of men, the other a square of ground. When the number of the sides is equall in length, and depth, it giveth but halfe so much ground in front, as in flanke. Each souldier, if it be a foote battaile, occupying a foote, and a halfe of ground in front, when he goeth to charge, where in flanke he must haue 3 foote. And in a horse troupe 3 foote in front, and double, or (as some say) treble as much in flanke. And so are the sides vnequall. The euen length of flanke and front giveth a like ground to both, and maketh the sides of the figure equall, but the number of the front double to the number of the flanke, whether it be in horse or foote. In foote, because the souldiers in ranke haue but halfe so much distance, as they haue in file; in ranke a foote and a halfe, in file three foote: In horse, because the length of the horse is much more, than his breadth, and that length is fully stretched out in flanke, the bredth onely in front.

Why Rhombes were first brought into vse, and the diuers formes of them.

CHAP. XIX.

THE forme of the Rhombe seemeth to haue beene taken vp for the necessarie vse thereof. For the Capitaine possessing the first place, the next following Horsemen are not to ranke with him, but to come a litle after on both sides; so that the heads of their Horses may reach to his horse shoulders, & on the right, & left hand, and behind, they ought to keepe good distances that too much thronging and clustering together, breed not disorder, whilest some horses being by nature fullen fall a flinging oftentimes, and foule with other; and considering the beast is somewhat long of body, that in turning about he wound not the horsemen, that are in fight, whilest with his heeles he aymerh at the Horses next vnto him.

They that fashion Horse into Rhombes, so fashion them, that some Rhombes file, and ranke; some neither file, nor ranke; other some file, but ranke not; other ranke, but file not: every particular whereof standeth thus.

They that would haue a Rhombe both file and ranke make the greatest ranke being the middlemost of an vneuen number, as of 11, or 13, or 15. To which they ioine other rankes before, and behind, every one conteyning two lesse than the former; as if the greatest ranke consist of 15, the next rankes on either side are to haue but 13, the next on either side of these 11. and so every one two lesse, till at last you come to 1. And the whole Troupe is to consist of 113 horse.

3 The halfe Rhombe is called a wedge being fashioned three square; so that the forme thereof appeareth in the Rhombe.

Other haue formed the Rhombe so, that the 4 Horsemen embattaile in that forme, neither file, nor ranke, conceiuing that turnings and other motions will be more easily performed in this figure, nothing hindring before, behind, or in flanke. And first they place the Leader; then one at his right, and another at his left hand, so distant, that their Horses heads reach vp to his Horses shoulders, as

is said before. And the first row they make of an vneuen number (as 11). The Leader of the Troope standing in the middest, and 5 other being laid to him backwardly on either side; so that this Ranke containeth two sides of the Rhombe. Then the reare-Commander is placed directly behind the Leader, and to him are other ioyned forwardly on either side, and the number of euery following ranke after the first, is to be two lesse than the former, and therefore 4 must be added on either side to the reare-Commander, and the number of the second ranke be 9. This ranke maketh two sides Parallel to the two former sides of the Rhombe. The third must be 7, and so forward to one. The whole Troope hath in it 36 Horse. Polybius expresth the forme by the Greeke letter Δ . and maketh it to consist of 64 men.

Other Rhombes there are which ⁶ file, but ranke not, and are fashioned thus: They make a file of any number, the Captaine of the Troope being File-leader, and the Reare-Commander the last of the file. To both the flankes of this file, they lay two other files, either of them one lesse in number, than the first. These they begin to place, euen with the middest of the distances of the first file on both sides, as if there were 10 in the first file, the next files on either side should haue 9 a peece, and the next after them 8 a peece, and still one lesse in all the rest after-comming files, and so it will fall out, that the Horsemen shall file, but not ranke. This forme is profitable for turning of faces, when need is, from one point of the Rhombe to another. 7 Turning to the right hand is called turning to the staffe. Turning to the left hand is called turning to the Raines. But if a Troope be ⁸ to ranke, and not to file, it must be ordered thus: The middle and greatest ranke is to be made of an vneuen number, and the rest of the rankes on both sides, laid euen with the distances of this ranke, as was done in the filing troope. So shall you haue a Troope that ranketh, but fileth not.

Notes.

THE former Chapter had a generall diuision of Horse battailes into Rhombes, wedges, and squares; this comprehendeth the sundry figures of Rhombes, and the manner of framing them. Rhombes therefore are of 4 kindes, some filing, and ranking; some filing, not ranking; some ranking, not filing; some neither filing, nor ranking.

1 The heads of the horses reach to the heades of his shoulders] *Ælian saith, that in a Rhombe the Captaine standeth first, and the heads of the next horse reach to his horse shoulders. This rule, if it be taken generally, and meant of all Rhombes, will deceiue vs; if for two kinde of Rhombs alone, there is nothing more true. The Rhombe neither filing, nor ranking; and the Rhombe filing, not ranking, haue the followers horses heads advanced to the shoulders of them, that stand before. But the Rhombe filing and ranking, and the other ranking not filing, come wholly behind the horse of the Captaine, as the figure shewes, and will appeare in the verball description of the Rhombe.*

2 A Rhombe both to file and ranke] *To make a Rhombe both file and ranke, choicemust first be had of an vneuen number for the ranke the middest of the Troope, where the manner is to begin the Rhombe; which number must neither be too great, least the Troope grow also too great, nor too little, lest there be in it no strength. Ælian giues a 11, 13, or 15 for that ranke, and willet vs to begin the frame by placing first the middle ranke, to which the other rankes are to be ioyned on both sides, the middle men*

against

against the middle man of the first ranke in a right line: of file, and the rest in like sort, euery Ranke still decreasing 2 men, till at last in the front, and reare-angle you come to one. The figure of this kinde of Rhombe I haue placed in the preadent Chapter; wherein the middle ranke is of 11, and the whole troupe of 61, and the horse heads of those that follow reach not to the former horses shoulders.

3 The halfe Rhombe is called a wedge] *I haue spoken of wedges before, but nothing of the framing of them. Ælian here sheweth how they are framed, when he saith, that the forme of them appeareth in the Rhombe, and that the halfe Rhombe is a wedge. For as in a Rhombe filing, and ranking, you begin with placing the middle ranke first, and so proceed adding on both sides ranke to ranke, till you come to one man in the front: So must you proceede in a wedge, sauing that to the first, and greatest ranke you ioine the rest onely on the one side, abating still in euery ranke 2 men, till you come to the point of the front, where the Captaine standeth alone. And this was the ordinarie horse troupe amongst the Macedonians, and is described in the next Chapter.*

4 That the horsemen neither file nor ranke] *The second kinde of Rhombe specified here by Ælian is directly opposite to the first. The first both filed, and ranked, this neither fileth, nor ranketh; and is that kinde, which I noted in the last Chapter, to haue more curiositie, than use. For the rest, what is more easie to frame, than they? In which either files, or rankes are laid together; or files alone, or rankes alone. And out of that ioyning both in the inward parts of the Rhombe, and the outward (that is the flankes) arise, and are without difficulty figured. In this you must first begin with the outsidies, and make two front lines, or sides of the Rhombe; and after adde as many to the Reare. And then when the 4 sides are framed, and haue their place, patch up by peece-meale the rest of the body within. Wherein if there be not very large distances left betwixt horse, and horse, especially euery one being laid head to shoulder to another, it is not possible to convey so many horses within the foure sides, as will make up the full Rhombe. And yet make it up as you will, the trouble is more, than in the rest of the Rhombes. And for the use, I see not how it can be greater, than in the rest, whatsoeuer is alledged for turnings, and other motions. And the more I thinke upon it, the more I am induc'd to thinke, that it was the invention of some Tacticke master (of whom were great plenty amongst the Græcians) who seeing that some Rhombes filed, and ranked not; other ranked, but filed not; other both ranked, and filed, and that the two first were opposite the one against the other, would needs bring in a fourth, neither filing, nor ranking, to make an opposition likewise against the third. But because this kinde also is specified by Ælian, let vs see how it is to be framed. Ælian for examples sake would haue the Troope to consist of 36 horse: To put the 36 horse in a forme, that shall neither file nor ranke, we are thus to worke. First, we must begin with the two front sides of the Rhombe, and make them of 11 horse, placing them thus: The Leader and Captaine in the point; next him backwardly on each side a horseman, his horse head reaching to the shoulders of the Captaines horse; then on the outward side of each of these a Horseman, and their horses heads must likewise reach to the shoulders of the next horses before. So must you goe on, till you haue in like manner bestowed 2 a peece more on each side, still opening the two sides of the Rhombe proportionally. Thus done you haue  Then are we to fashion the two Reare sides of the two sides of the Rhombe which  Rhombe of 9 horse, placing them after this manner: The Lieutenant in the Reare angle, directly opposite to, & yet looking toward the Captaine; on either side of him forward toward the front 2 Horsemen, their horses shoulders lying euen with the head of the Lieutenants horse. And after them the other 6; 3 on one side, and 3 on the other in the same proportion. And so haue we the other two sides of the Rhombe in this forme.  which being*

K

ioyned

The Tacticks

ioyned to the former make the 4 sides of the Rhombe; In the framing whereof 20 of the 36 horse are bestowed. There remaine 16, which are thus to be ordered: Within the Rhombe we must at reasonable distance place a horseman behind the Captaine in a right line, and in the manner as before lay 3 to him on each side. The number will amount to 7, and this is the figure.

Then another horseman is to be set at the same distance directly before the Lieutenant, and on each side of him two other toward the front, And these 12 horse ioyned together, will fashion out a lesser Rhombe, comprehended within the sides of the first. So are 32 horse disposed of. The 4 that are left are thus to be ordered. In a right line againe after the Captaine, and at the former distance is another horseman to be set: Then 2, one of the one side, & the other of the other side of him, their horses heads reaching to his horses shoulders thus. The horseman left must supply the void place, standing directly before him, that stood next before the Lieutenant. And this is the true description of the Troope neither filing, nor ranking. I haue bene the longer in describing it, because the figure grauen is not fully to my minde, no horse head reaching to the shoulders of the horse, that standeth before him.

5 Polybius maketh it to consist of 64 men] Elia[n] took the number of 36 horse to frame this Rhombe, Polybius requireth 64. The number is not materiall, so the forme be obserued. If you make it of 64, you are to take 15 horse for the 2 front sides, and 13 for the 2 reare sides, and so in euery ranke within to diminish 2, as you did in the former.

6 Which file, but ranke not] The third kinde of Rhombe fileth, but ranketh not. It is easie to frame. Take what number of horse you please, and make a file; then lay to the distances betwixt horse, and horse of that file on each flanke two other files, each file conteyning one lesse in number than the first. And the heads of the files are to be laid right against the space which is betwixt the Captaine, and his follower, and the rest of the horses against the other spaces successiually. In all the paires of files, that follow, and are laid to the flanks, you must still diminish a horse a peece, till you come to the points, which haue but one either of them. And of this abatement of one in euery file, both front, and reare, and flanks grow into points, and make a Rhombe: As of the euen number in euery file, a square battaile would arise. See the figure. This was the forme the Theffalians fought in, as appeareth by Elia[n].

t after cap. 46.

7 Turning to the right hand] The turnings of horsemen and footmen to the right, and left hand, are not termed by the same names. And the difference commeth of the disposition of weapons caried on the right, or left side. The horseman in his right hand held his staffe, in the left the reins of his bridle. The armed-foote in his right hand his pike, on the left shoulder his Target. Hence was it, that when the horseman was commanded to turne to the right hand, they bid him turne to his staffe; the footeman to his pike. When to the left hand, they bid the horseman turne to the Reins, the footman to the Target.

a Polyen. lib. 4.
217. 221.

8 To ranke, and not to file] This is the last kinde of Rhombe, and it ranketh, but fileth not. It is made by a contrary way to the former. The filing Rhombe began at the front point, & reare-point, & proceeded to the flanks. This beginneth at the flanke points, & proceedeth to the front and reare. First therefore a ranke is to be laid of what number you list. Elia[n] would haue it of an vneuen number; but it will fall out as well in an euen number, as the figure sheweth. To the distances of this ranke you must lay 2 ranks more, one on either side, whose number must be one lesse a peece, than the former ranke. Thus continue laying ranks still toward the front, and reare, and in euery paire of ranks diminish one a peece, till you come to the points, either of which haue but one, namely the Captaine, & the Lieutenant, and the Rhombe will ranke, and not file.

CHAP. XX.

The place of Horsemen in the field, the number of an usuall horse troupe, the degrees, and names of the officers of the Horse in generall.

CHAP. XX.

THE Troopes of Horse, as the light-armed, are placed sometime before the *Phalange*, sometime on the right, or left hand in *flanke* of the *Phalange*, sometime behind the light-armed in the *Rear*. For our purpose, let them be placed in the *Rear*, and let the first Troope be of 64 men, and the first ranke thereof 15 Horse. The next 13. The next 11; and in all the rest abate 2, till you come to the last, which is one.

¹ He shall carry the *Cornet*, that standeth in the second ranke next the *Ranke-Commander* on the left hand. All the Troopes shall be 64 in number. The horsemen in all 4096. ² Two Troopes are called an *Epilarchy* of 128 horse. Two *Epilarchies* ³ a *Tarentinarchy* of 256 horse. Two *Tarentinarchies* ⁴ an *Hipparchy* of 512. Two *Hipparchies* ⁵ an *Ephipparchy* of 1024 horse. Two *Ephipparchies* ⁶ a *Telos* of 2048 horse. Two *Telos* make ⁷ an *Epitagma* of 4096 horse.

Notes.

Hitherto of Squares and Rhombes, usuall horse battailes amongst the Græcians. Now followeth the horse battaile of the Macedonians, of which Ælian hath thus afterward: This forme of horse battaile is called a wedge by Tactics, and it was invented by Philip King of Macedonia, who placed his best men before, that by them the weaker might be held in, and inabled to the charge. As in a speare, or sword, the point whereof, by reason of sharpnes quickly piercing maketh way for, and letteth in the middle blunt yron. I haue spoken somewhat of the vvedge in the two last Chapters. Ælian in this Chapter sheweth the number, and manner of framing it, and how many troupes ought to attend the *Phalange*, and vnder what offices, and degrees.

¹ Let the first troupe be of 64 men. The number of the wedge ought to be 64 horse. You make it beginning (as the Rhombe that ranked, but filed not) with a ranke of 15 horse. Then must you proceed toward the front, with an other ranke of 13, the middle man filing with the middle man of the first ranke, and the rest with the rest. And so you are to continue abating still two in euery following ranke, till at last you come to one, who is the *Commander* of the Troupe, and standeth in the point of the front.

² He shall carry the *Cornet*. The place of the *Cornet* is not right set downe in the figure. He there standeth on the right hand of the middle man of the second ranke, whereas he should stand on the left. And you must not account the second ranke to be the ranke next to the *Commander* in the front; but as Ælian doth, that was secondly placed after the first consisting of 15, which was in the *Rear*. So that the *Cornet* is to stand in the next ranke to the *Rear*.

But here is nothing said concerning the distances, that ought to be betwixt horse, and horse. Of the distances betwixt foote, and foote he hath spoken in the 11 Chap. But of the distances betwixt horse, I finde nothing, but generall words. That which wanteth in Ælian, I will supply out of other Authors. We must vnderstand then, that two kinde of distances were obserued amongst horsemen; one for marching; an other for fight.

n Polyb. lib. 11. 2.
663. A.

o Leo cap. 17.
s. 89.

In marching there ought to be 6 foote betwixt horse and horse. *Ælian* hath before given this distance to the foote. And that horse held it likewise appeareth by *Polybius*. Who reprehending *Calisthenes* for carelesnesse in describing the battaile betwixt *Alexander* and *Darius* at *Issos*, specially taxeth this: That he placed thirty thousand horse, and thirty thousand mercenaries, in foureteene furlongs of length. whereas the place was not capable of halfe the horse. His words haue this sense; The order of horse, when they are prepared for fight, is for the most part 8 in depth. And there is a distance to be left in front betwixt euery troupe, to giue liberty to wheele and double-wheele. So that one furlong will containe 800 horse; and 10 furlongs 8000; 4 furlongs 3200: And eleuen thousand, and two hundred Horse will fill the space of 14 furlongs in length. The words seeme at first somewhat obscure, being well weighed they will be cleare enough. *Polybius* saith, that these 800 horse were ordered 8 in depth, and that they tooke up a furlong of ground in length. There must be therefore of them a hundred files. For a hundred files of 8 horse a peece, will arise to 800 horse. Compare then these 100 files, (the length of the battaile) to the length of a furlong. And seeing a furlong containeth 400 Cubits, or six hundred foote, euery file shall haue 4 cubits, or 6 foote space betwixt them. And so the distance betwixt file and file in a march will be 4 Cubits, or 6 foote. The other distance of three foote appeareth in *Leo*, whose words stand thus: Put the case, that the battaile is of 600 horse in length, and 500 in depth, seeing that euery horse in length of the battaile possesseth three foote in breadth, the number of feete will amount to 1800; And seeing againe that euery horse in depth possesseth 8 foote, there will arise hereof 4000 feete; so that in the foure-sided figure, out of the length of 1800, and the depth of 4000 feete arise 720 *Myriades* of square feete. And the Perimeter alone of the outward foure sides containeth 11600 feete. And because 6 feete make a fathome, and a 100 fathoms make a furlong, and 7 furlongs, and a halfe, make a mile, the whole Perimeter of 11600 feete will come to two mile, and a halfe, and neare a 10th part. In this distance therefore according to the closest order, or shutting, the thirty thousand horse are contained. But if they stand not so close, you must alter your account according to the thinnesse, and out of the greatnesse of place coniecture of the multitude of the people. So *Leo*. Which place albeit it seeme to require a large interpretation, because many things worth the noting offer themselves in it; yet for this time I will onely insist upon that, which I first propounded, that is the distance of three foote betwixt horse, and horse, when they goe to charge (for that is the meaning of *Leo*, when he speaketh of the closest order) which distance is expressly here set downe. And the matter will yet seeme more cleare, if we adde the words of *Leo* in the Paragraph next, but one, to this, which are these: The oldest Tactics in ordering of foote Battailes giue euery man at the first distance foure Cubits; when the battaile is closed two Cubits; when ferred and shut one Cubit. Out of which proportion a Scout may exactly discover by the quantitie of the place the number, not onely of horse, but of foote also. These oldest Tactics that *Leo* mentioneth agree with *Ælian*, as wee haue scene. But where the foote haue three distances, the horse are to haue but two. The open order of six foote they ought to haue, and likewise that of three foote; nearerer they cannot come together, because of the bredth of their horse, and because they are to haue roome sufficient for the wielding of their weapons.

All the Troupes are to be in number 64. A Troupe consists of 64 men, and to the Phalange belong 64 Troupes, as the Phalange containeth 64 Ensignes, or Syntagma's

tagma's of armed foote. To which Ensignes the 64 Troupes of horse are proportioned. Their place is according to *Ælian* after the light-armed; not one troupe after, or behind another, but one beside another, in one front; and that front in a right line, which stretcheth out, as long as the Phalange of armed it selfe. Now the files of the armed being 1024 in number, and the number of the horse in the last ranke (which containeth the length of the Horse-battaile, and should answer the number of files) but 960, we must seeke out a proportion to make the length of both equall one to another. The difference then betwixt them in length is 64 men, which in order take up 192 foote. And where there goe foure Phalangarchies to a fourefold Phalange, and 16 troupes of horse are placed behind euery Phalangarchie, we must diuide these 192 foote into foure parts; euery of which parts will amount to 48 foote, and giue to each troupe three foote distance one betwixt another (for distances betwixt one troupe, and another, *Polybius* holdeth necessary) and so shall the 16 troupes of horse take up as much ground in length as a Phalangarchie. The one containing 256 files in length which occupy 768 foote of ground, and the other 240 men in the last ranke, which occupy 720 foote. To which adding 48 foote of distance, there ariseth the euen number of 768. And so shall the 64 troupes of horse be euen in length with the fourefold Phalange.

The names of the Offices, and Commands of the Horse follow, wherein as I before noted in the foote, we must not presse too neare the property of words, but take them, as they haue beene used among Souldiers.

3 Two troupes are called an Epilarchie. One troupe is called Ile, and the Commander an Ilarch; for so he is termed before in *Ælian*. Two troupes an Epilarchie, and the Commander an Epilarch; as it were a Commander ouer two Iles, troupes. He hath 128 Horse under his command. o Cap. 18.

4 A Tarentinarchie. Of Tarentines mention is made in the second Chapter. The name of a Tarentinarchie is not giuen to this Troupe, because it consisted of Tarentines, but because of likelihood the Tarentine horsemen had so many in a troupe. Let it be, as it will, it signifieth here a troupe of 256 Horse.

5 An Hipparchie. Properly signifieth the command of horse, and *Xenophon* useth the word Hipparch for the Generall of horse; but *Ælian*, and the Tactics use it for the command of 512 horse.

6 An Ephipparchie. As it were a command ouer two Hipparchies, or ouer 1024 horse.

7 A Telos. The name of Telos is giuen both to a body of horse, and to a body of foote. A Merarchie was called by some Telos (saith *Ælian* before) and contained 2048 armed. The Telos of horse containeth 2048 horse. So the bodies are equall in number. The word sometimes signifieth a Command, or Dignitie, from which signification this body, as seemeth, hath the name.

8 Epitagma. The whole body of light-armed was called an Epitagma, which name is giuen likewise to the whole body of horse comprizing 4096 horse. It may be they are both so called, because they are placed behind the Armed, as I noted before. For that place *Ælian* assigneth vnto them.

The diligence to be used in choice, and exercise of the best formes of Battailes.

CHAP. XXI.

THE Inventions and conceits of those, that liued in old time, about *Troopes of Horse* are declared, in what forme euery one was cast, and for what cause some vsed one forme, some another. Now it behoueth (as in things that carry with them great difference) not carelessly, and negligently, to rely vpon the bare precepts; but rather by daily exercise to make tryall of euery kinde of figure, and so attayning to the perfect knowledge of that, which is readiest, and of most advantage, to admit and receiue it in true fight. For it were great simplicitie, considering in matters of lesse importance men by curious inquiry reach to the exact finding out of many things, herein not to ground vpon perfect and sure experience, before we come to ioyne with the enemy.

Troopes may be enlarged or lessened, as it shall seeme convenient to him, that hath the command.

Of Chariots; the names, and degrees of the Commanders.

CHAP. XXII.

AS for ordering *Chariots* and *Elephants*, albeit they are worne out of vse, yet to make vp the measure of this discourse, I will remember their names, as they are set downe in ancient writers. In the Art of ordering *Chariots* for the field, they call two *Chariots* a ¹ *Zygarchy*; Two *Zygarchies* a ² *Zyzygi*; Two *Zyzygies* a ³ *Epyzyzygi*; Two *Epyzyzygies* a ⁴ *Hartamarchy*; Two *Hartamarchies* a ⁵ *wing*; Two *wings* a ⁶ *Phalange*.

A man may vse many and sundry *Phalanges* of *Chariots*, and yet retaine the same names in euery *Phalange*. Some haue framed simple *Chariots* to serue withall; other some haue armed them with *Sithes* prominent and standing out on each side.

Notes.

THEre were two kinde of *Chariots* used of ancient time, the one a simple *Chariot*, the other a *Chariot* armed with *sithes*. The first kinde was used by the Heroes (as they terme them, that is the renowned Souldiers of old, such as were Achilles, Hector, Cycnus, Aeneas, Turnus) as appeareth by Homer, Virgil, Ovid, and other Poets. The last was brought in by the Generalls of later times, especially by those that reigned in Asia, and in Africa. For the ^m Europeans haue counted them fruitlesse, and vaine mockeries, and amongst them you shall hardly finde any mention of *Chariots*. Elian toucheth them onely, because both they, and *Elephants* were in his time growne out of vse. Wherefore I meane likewise to passe them ouer sleightly, onely directing the Reader, that is desirous to vnderstand their manner of fight to places of Historie, where they are mentioned. And first see for their

Forme.

^m Liv. decad.
4. lib. 7. 142. B.

Forme. Xenoph. Cyrop. lib. 6. 152. D. E. & 156. B. C. de exped. Cyr. lib. 1. 264. A. B. Liu. decad. 4. lib. 7. 142. A. Diodor. Sicul. lib. 17. 596. Quin. Curt. lib. 4. 119 & lib. 8. 371.

Their violence, Diod. Sicul. lib. 17. 593.

Their place in the battaile, Xenoph. Cyrop. lib. 6. 168. C. D. Liu. decad. 4. lib. 7. 142. A. Diod. Sicul. lib. 14. 408.

Remedies against them, Diodor. Sicul. lib. 17. 592. 593. Xenoph. de exped. Cyr. lib. 1. 265. Liu. decad. 4. 142. Quint. Curt. lib. 4. 141. Plutarch. in Sylla.

I come to the names of the Commands of Chariots.

1 A Zygarthic] *The command of two Chariots; as it were a yoke of Chariots.*

2 A Syzygy] *The command ouer two yokes, as it were, of Chariots ioyned together; that is ouer 4 Chariots.*

3 An Episyzygy] *The command ouer foure yokes of Chariots, that is ouer eight Chariots.*

4 An Harmatarchic] *Properly the command of Chariots. But used by Ælian for the command of 16 Chariots.*

5 A wing] *As foote, so Chariots, and Elephants, had their wings of battaile. To the wing went 32 Chariots. Yet finde I this order of imbattailing Chariots nowhere, but in Ælian. He that will, let him read the places, that I haue noted before, for the ordering of Chariots. Notwithstanding I can not doubt, that the names giuen here by Ælian, are taken out of ancient writers.*

6 A Phalange] *It consisteth of 64 Chariots; and wee here see, that Chariots also had their Phalanges, as well as foote, and Horse.*

of Elephants; the names, and degrees of their Commanders.

CHAP. XXIII.

Touching Elephants, he that is Commander of one Elephant is called ¹ Zearcha; Of two ² Therarcha, and the body a ³ Therarchy; Of foure ⁴ Epitherarcha, and the body an Epitherarchy; Of eight ⁵ Ilarcha, and the body an Ilarchy; Of 16 ⁶ Elephantarcha and the body an Elephantarchy; Of 32 ⁷ Keratarcha, and the body a Keratarchy. That which consisteth of 64 wee call ⁸ a Phalange of Elephants; as if a man should name the Commander of both the wings Phalangarcha.

Notes.

The use of Elephants was greater amongst the people of Asia and Africa. Those of Europe esteemed them not much. And yet we finde, that they were brought into the field by the Romans also; who first saw Elephants in Italy in the warres, they had against King Pyrrhus. * The Indian Elephant was preferred before the African for greatnesse of body, strength, and courage. Many things are written concerning the seruice of Elephants. But because Ælian toucheth no more, then the names of the bodies, and the degrees of Commanders, I will only note such things, as I finde concerning them in Histories. Their kinde of armor, and furniture I haue taken out of Liuy; and expressed them as neere, as I could, in figure.

Liu. decad. 4.
lib. 7. 141.
Polyb. lib. 9.
425. C. D.

The Tactics

For their power, strength, and manner of fight, see Diodor. Sicul. lib. 17. 609. & lib. 19. 717. Polyb. lib. 1. 35. D. & lib. 5. 425. C.

Their place in battle, Diodor. Sicul. lib. 17. 685. Arrian. lib. 5. 111. Liu. decad. 4. lib. 7. 141. B. Appian. in Syriac. 107. Polyb. l. 1. 34. D.

The distance one from another. Arrian. lib. 5. 111.

Light armed in the distances betwixt Elephant and Elephant, Diodor. Sicul. lib. 17. 609. & lib. 18. 665. & lib. 19. 685. & 716. Plutarch. in Pyrrho.

Remedies against Elephants, Diodor. Sicul. lib. 18. 665. & lib. 19. 717. Polyb. l. 1. 42. A. Hirt. de bell. African. 416. Liu. decad. 3. lib. 7. 194. C.

I have noted before the impropriety of names given to militarie bodies as well in the armed and the light armed foote, as in horse troupes, and in Chariots. That defect is no lesse in Elephants. The Commanders and commands of them having names, which were at first large, and improper enough, but afterward made good by use, and received by the Tactics as significant to expresse the things, for which they were invented. The first is given to him that is to command one Elephant. Who is called

1. Zoarchos] The Commander of a living creature, that is of one Elephant. The next is

2. Therarchos] A Commander of Beasts: which name is appropriated to him, that commandeth two Elephants, and the body it selfe is named a Therarchie.

3. An Epitherarcha] Having the authoritie over the Therarchie and the body is called an Epitherarchie comprizing foure Elephants.

4. An Ilarch] As it were the Commander of a troupe, and the body is called an Ilarchie. It is commonly applied to horse, and signifieth a horse troupe, and Ilarcha the Captaine. But here Ilarcha signifieth the Commander of 8 Elephants.

5. An Elephantarch] A Commander of Elephants; as though the other bodies before mentioned were not of Elephants. Such straighes are men often times driven unto in devising new names for new things, which notwithstanding passe afterward and growe familiar by use. Elephantarcha commandeth 16 Elephants, and the command is called an Elephantarchie.

6. A Keratarch] The Commander of a wing, the body a Keratarchie, having in it 32 Elephants. A wing of Chariots had as many.

7. A Phalange] This is the greatest body and consisteth of 64 Elephants. But as Chariots may be ordered into many Phalanges, and yet the same names retained in every one of the Phalanges, so it is in Elephants. For that armies have had in them at once a-

boue 64 Elephants appeareth by Histories. Polybius, and Diodor Sicul. testifie, ^c the first that the Carthaginians, ^d the last that King Porus against Alexander had the one 140, the other 130 Elephants in their armies. ^e The same Polybius saith that Ptolomey had against Antiochus 73 Elephants in his army, and Antiochus 102. And ^f Plutarch reporteth that Androcottus, King of a part of India, gave to Seleucus at one time 500 Elephants

The names of military motions expressed
in this booke.

CHAP. XXIV.

THUS have we set downe in particular the kindes of perfect Forces together with the severall names of every body; Which being premised, it seemeth fit

fit to deliuer the words of exercise, that when the Commander, shall will any thing to be done, the Souldier in daily experience acquainted before with the signification of euery of them, and with the moouing in each figure may easily performe and execute, whatsoeuer is commanded.

There is a motion called *Clisis* whereof one kinde is to the Pike, the other to the Target; Another is called *Metabole*; another *Epistrophe*; another *Anastrophe*; another *Perispasmus*; another *Eperispasmus*; besides we say to *file*; to *ranke*; to returne to the first posture; to *countermarch*; to *double*. Likewise we vse the words *Induction*; and *Deduction* to the right, or left hand; a *broad-Phalange*; a *deepe-phalange*; and *uneuen-fronted Phalange*; and *Parembolè*; and *Protaxis*; and *Entaxis*, and *Hypotaxis*; and *Epitaxis* and *Prostaxis*. The signification of which words I will shortly deliuer. And yet I am not ignorant, that the precepts of warre are not by all *Tacticks* expressed in the same tearmes.

Notes.

A Ælian in the Chapters precedent, hath numbred up all kinde of forces, as well foote, as Horse, and Chariots, and Elephants, that in ancient time were accounted necessarie for warre. And hath giuen them their armor, and furniture, and distinguished them into militarie bodies, and imbattailed them, and taught the distances, that they ought to hold in fights. It followeth now that he speake of motions military; which are the life of an armie, and onely giue meanes of victorie; and without which all preparation of forces is vaine, and auaieth nothing in the field, nor to the end, for which they were leui'd. This Chapter then containeth the names of those motions; the following Chapters the particular explication of them. To which we will note, what we finde in ancient writers. For the signification of the words, I referre them to the severall Chapters, where they are expounded.

Of turning, and double turning the Souldiers faces,
as they stand embattailed.

CHAP. XXV.

Clisis or turning of the face, is the particular motion of euery Souldier declining his face either to his Pike, that is to the right hand, or to his Target, that is to the left hand. The vse of it is, when the enimie sheweth himselfe in flanke² to encompassse our winges, or else to charge vs: or for some other cause, whereof I will speake in conuenient place. ³ Two turnings of the face towardes the same side transferre the sight of the Souldier to the reare of the battaile. And this kinde of motion is called *Metabole*: being also vsed either to the Pike, or to the Target. In the first standing the mouing of the Souldiers face toward the Pike is called *Clisis*, the second mouing the same way *Metabole*: For *Metabole* is the conuersion of euery mans face particularly to the place, which was behinde his backe. And the same that *Metabole* is in ech severall Souldier, the same is *Perispasmus*, or wheeling about in the whole battaile. There are ⁴ two kinds of *Metabole*, the one from the enimie, the other to the enimie. *Metabole* is defined to be a changing of euery mans face in particular from the front to the

reare;

reare; or contrariwise. Turning about from the enemy is, when the Souldier turneth his face twice towards the Pike; To the enemy, when hee turneth twice towards the Target.

Notes.

Foure kinde of Motions are set downe by Ælian whereby upon any occasion the battaile may be somewhat changed: Turning of faces, countermarch, wheeling, and doubling, whereof the first may be used, in what order soever your battaile standeth, the second onely in open order, the third in close order only, the fourth either in close, or open order. Clifis, or turning of faces, whereof this Chapter intreateth, albeit it may be brought in also in open Order; Yet is it not done for the most part but in close order; and then especially, when none of the other motions haue place. The Græcians alwaies comented to bring their file Leaders, that is their best men, to fight. In open Order they chose to countermarch; In close Order, hauing place, to wheele their battaile about, and so turne the face of it against the enemy. If they could doe neither of these, they came to the last remedy, which was turning of faces of euery particular man in the battaile.

1 Clifis, or turning of faces This motion is of lesse paines then any other, but of no lesse importance, or necessitie. In the rest the Phalange changeth the place, or the forme: In this it holdeth both, and yet is ready for any attempt of the enemy. Onely euery Souldier in particular turneth his countenance to the right or left hand, as he is commanded. To turne his face to the Pike is to turne to the right hand, because that hand bore the pike, to turne to the Target is to turne to the left hand; because the Macedonians carried their targets on their left shoulder. For the use of this turning of Faces, Ælian saith, It hath place when the enemy sheweth himselfe in flanke

2 To incompasse, our wings Clifis is no more, then bearing faces to the right, or left hand, that is to our wings. When then we finde our enemies, to incompasse our right wing, wee turne our faces, and weapons that way to receiue him: to the left, when he cometh to charge vs on that side. If on both sides, then turne wee the faces of our Phalange halfe to the right, halfe to the left hand; which is the Antistomus Phalange whereof Ælian speaketh hereafter. Briefely, there is almost none of the marching Phalanges which are afterward described, but it hath neede of this motion. Besides if upon any occasion the Phalange be to moue from any of the flanks, you are only to command Turning of faces to that flanke, and then to lead on. I will giue an example, or two. ^a Alexander at Arbela hauing imbattailed his armie to fight with Darius, had intelligence, that Darius had strowed the ground betwixt the two armies with Calthropes. He commanded therefore the right wing, which himselfe led, to turne faces to the right hand, and follow him, to the end to go round about, and auoide the places, that were sowed with Calthropes. Darius marching against him to the left hand, disioyned his troupes of horse, and Alexander taking the aduantage, and giuing in quickly betwixt the spaces, put Darius to flight. If Alexander had marched on with the right front, he had fallen upon the Calthropes. To auoide them, he used the benefit of this motion, and turning faces to the right hand he led on, untill hee had passed the danger, and then turning againe to the first posture, went to charge, and defeated the enemy. An other example is in ^b Polybius, who describing the battaile betwixt Machanidas the Lacedemonian Tyrant, and Philipœmen the Achæan Generall, telleth, that Machanidas hauing in the left wing put the Achæan mercenaries to flight, followed hard the chafe. Philipœmen as long, as there was hope, indeuoured by all meanes to stay his men: when he saw them vtterly defeated, hee hastied to the right

^a Polyen. lib. 4.
in Alexand.
§ 17.

^b Polyb. lib. 11.
634.

right wing, and perceiuing the enemy busie in chafe, and the place void, where the fight had beene, commanding the first *Merarchies* to turne their faces to the right hand, hee led them on with high speede, not yet breaking the order of their imbattailing. And quickly seizing vpon the forsaken ground, hee both cut betwixt them, that gaue chafe, and home, and withall got the aduantage of the vpper ground against the left wing of the armed. Whereby hee obtained the victory. If Philipœmen had in this action used wheeling of his battaile, which onely was the other motion, which would haue serued his turne, besides the troublesome of the winding about, he should haue beene forced to haue used two wheelings, and so failed of the celerity, which was at that time requisite. Faces were turned in a trice, and he made himselfe Master of the ground, hee desired, before hee could haue wheeled once his battaile.

3 Two turnings of the Souldiers face Clifis, or turning faces to the right, or left hand, consisteth of one turning and moueth no further, then the side. If the motion be to the reare, it hath two turnings, and is called Metabole, which is defined to be a changing of euery mans face in particular from the front to the reare, or contrariwise. And as wheeling of the whole body carrieth about the fronts of the battaile to the reare; So doth Metabole turne the face of euery particular Souldier, and maketh him looke from the front to the reare. The word properly signifieth a change, which happeneth herein, when the souldiers are changed from the front to the reare, or contrariwise. The use of Metabole is principally to resist the enemy that giues on upon the reare. ^a So Pyrrhus being entred the Citie Argos with a few, and overpressed with multitude, retired by little and little, and defended himselfe, often turning his and his souldiers faces against the enemy. ^b So the armie of Cyrus the elder retiring from the walles of Babylon, often turned about their faces to the left hand, and waited their enemy, who were reported to be on foote, and ready to come and charge them. And if the enemy assault both the front, and reare, it hath beene the manner to continue halfe the souldiers in each file with their faces to the front, and command the other halfe to turne their faces to the reare against the enemy behind. And this forme is called Phalanx Antistomus described by Ælian cap. 38. And sometimes it is used to speed our march, and prevent the enemy, as was said before of Clifis. ^c Agesilaus made an incursion into the Territory of the Thebans, and finding a Trench, and Ramper cast vp by the Thebans for defence of their Countrey, and onely two narrow waies betwixt, he cast his armie into a hollow Plinthium, or square, and led it against the left hand passage, whither all the Thebans flocked for defence. But hee turning about faces from the reare, hastied away, and gained the other passage, where no man was present to resist, and entring spoiled the Countrey, and returned without impeachment.

4 There are two kinde of Metaboles Before were rehearsed two kinde of turnings of faces about, one to the pike, the other to the target, here is added two more, one from the enemy, and the other against the enemy; which are all one indeed, and differ onely in name. What the true meaning of these turnings should be, I am in doubt, Ælian expounding them one way, Suidas an other. Ælian esteemes them by the right, and left hand, Suidas, albeit he haue that signification also, esteemeth them by the front and reare. Therefore Suidas defines the turning from the enemy to be a turning about; toward the reare: that against the enemy, a turning about toward the front. Ælian would haue the first to containe two turnings toward the right hand, the second two turnings toward the left. I for my part assent rather to Ælian. For touching the turnings of Suidas, I cannot yet understand, why turning toward the reare should be a turning from the enemy; Or toward the front a turning to the enemy: Considering that whether

^a Plut. in Pyrrh.

^c Xenoph. Cy-
ro. lib. 7. 189.

^b Polyen. lib. 11.
Agesilaus.

whether sooner you turne faces, the enemy is imagined to be there; faces and weapons being to bee opposed alwaies against the enemy, which is the onely end of turning. Alians opinion seemeth to haue more probability in it, at least if I conceiue the right reason. For I take it thus: That seeing the Græcians (as the Romans likewise) were Targetieres, and caried their targets on their left side, and in fight aduanced that side alwaies neereft the enemy, which they sought to couer with their targets, that therefore the turning about to the enemy, was called turning to the Target; as contrarily turning to the right side, on which side the Pike was caried, and which being naked of such defensue armes was called the open side, and therefore further remoued from the enemy, might for the same cause be tearmed turning from the enemy. So that I take turning about to the enemy, and turning about to the target to be all one, as also turning about from the enemy, and turning about to the Pike, howsoeuer the name differ. This is my coniecture, which I shall imagine to be true, till I finde some man, that will bee pleased to giue me a more probable reason: I only adde now the words of command in this motion.

Faces to the right hand.

Faces to the left hand.

Faces about, to the right or left hand.

The figure sheweth the manner.

As you were,

Of wheeling, double, and treble-wheeling of the battaile,
and returning to the first posture.

CHAP. XXVI.

E Pistrophe (or wheeling) is when the battaile being so closed, that no man can turne, or twice turne his face by reason of the neerenesse of man to man, it wholly, and iointly wheeleth (as a ship, or some other body caried about) the order thereof remaining vndissolued. When the wheeling is to the Pike, we warne the right-corner-file-leader to stand still (as it were the hooke of a doore hinge) and the rest of the battaile proceeding forward to turne about the same file-leader like the doore. In the same manner is wheeling to the Target; It may be thus defined: *Epistrophe* is, when shutting the battaile by gathering close the Followers, and Side-men, we turne it wholly (as the body of a man) toward the Pike, or Target, it being caried about the corner-file-leader, as about a Center, and, changing the place of the front, transerre the countenance of the souldier to the right, or left hand; the followers and sidemen euery one remayning in file and ranke as before. How it is to be done I will shew hereafter.

Anastrophe, or returning to the first posture, is the restoring of the wheeling to the place, where the battaile first stood close, before it beganne to wheele. *Perispasmos*, or wheeling about, is the motion of the battaile in two wheelings, so that thereby the front commeth to the place of the reare. *Eperispasmos*, or treble wheeling, is the motion of the battaile in three wheelings, so as, when it turneth to the Pike, the front commeth about to the left flanke; when to the Target, it commeth about to the right flanke.

Notes.

Notes.

T His Chapter hath a diuers kinde of turning from the other mentioned in the last Chapter, which for distinction sake, is called *Epistrophe*, or wheeling. The other turned no more, then the souldiers faces, euery man yet keeping the same ground; he had before. This wheeles the whole body, and changeth the place of the Phalange either to the right, or left hand, or to the reare. And as there was in the turning of faces a particular motion of euery particular souldier to the right, or left hand, called *Clisis*, and an other turning about called *Metabole*: so is there in this a generall wheeling of the whole body to the right, or left hand, called *Epistrophe*, and an other wheeling about to the reare called *Perispasmos*. But let vs heare the description.

Epistrophe (or wheeling) is, when the Battaile] Shortly *Epistrophe* is no more, then the first turning of the battaile to the right or left hand. In doing whereof first the files must be closed to the hand, you meane to wheele, then the ranks. Then the corner-file-leader on the same hand is to stand still, then all the rest keeping their files, and ranks closed, so turne to the same hand iointly about the Corner-file-leader circle-wise, who is to moue by little, and little, till he haue turned his face to that side, which was intended. And when the first ranke is euen with him, and the rest wheeled enough to the same hand, they are to stand still: The words of the definition of *Epistrophe* (or wheeling) are plaine enough in Alian; I neede use no exposition. Now because in exercise we relie not upon one forme of motion alone, but acquaint our souldiers with all the kindes; It is necessarie to bring the body againe to the first place, to the end we may proceede in the rest. This reducing to the first Posture is called *Anastrophe*, by which the battaile returneth, but by a contrary hand, to that, to which the *Epistrophe* was made: And but for changing the hand the wheeling backe againe is all one with the wheeling forward. Wee shall see hereafter how it is done. To bring the battaile to haue the front, where the reare was, you must use a double wheeling. And that is called *Perispasmos*. Which commeth of two *Epistrophes*, and is made either to the right, or left hand. Onely it must bee obserued, that if the *Perispasmos* (or wheeling about) be to the right hand, the *Anastrophe* (or reducing to the first posture) must be to the left. Contrarie it is if the *Perispasmos* were to the right hand.

Eperispasmos] I could neuer hitherto conceiue any use of a treble wheeling (for so Alian takes the word) vnlesse a *Perispasmos* were first made, and the battaile had the front already brought to the reare, and so an *Epistrophe* added from the reare to the same hand. Otherwise seeing that one wheeling is sooner made, then two, and therefore sooner then three, I see no neede of three wheelings, especially seeing we may doe that, wee desire with one. For example, let vs wheele our battaile thrice to the right hand, the front will come to be in the place of the left flanke. The same will be performed as well with one wheeling to the left hand. Et frustra fit per plura, quod potest fieri per pauciora; especially in matter of warre, where the least moment of time often carrieth the whole businessse. The like may be said of *Eperispasmos* to the left hand.

The use of the motions of wheeling, and double wheeling, is, when the battaile being closed, and the enemy comming to assault you in any other one place, then the front, you seeke to bring the best men to fight. For if you be to be charged in two places at once, or more, wheeling helpes little; except it be to turne the front to one enemy, and in that case your onely shift is, to turne faces against them, that come to charge, on what side soeuer they come. Examples of these two motions, I meane *Epistrophe*, and *Perispasmos* meete vs almost in euery Greeke Historie. Of which I will represent one, or two, especially of the latter.

latter: the rather because practise giueth both light, and life to precepts. ^a Plutarch recounteth, that after King Pyrrhus, had in vaine assaulted Sparta, he was invited by an Arginian named Arislaus to receiue Argos into his protection, and that hee marched thitherward with his armie. Arius the king of Lacedemonia laying ambushes for him, and taking the principall streights, by which he was to passe, charged his reare, wherein the Galatians and Molossians were. When Pyrrhus heard the bruite and noise, he sent his sonne Ptolomy with the band of Companions to aide, himselfe with all speede marching out of the streights, led on his armie. The medly being sharpe about Ptolomy, and the chosen Lacedemonians commanded by Eualcus standing close to their busines, Oroesus a Candiot of Apta, valiant of his hands, and swift of foote, running crosse against the young Prince gaue him a deadly stroke and ouerthrew him. His fall made the rest to flie. And the Lacedemonians hauing the victorie, and following the chafe came into the Champian ground still killing but not remembring they were followed with armed foote. Vpon whom Pyrrhus, hauing euen then heard of, and being much moued with the death of his sonne, wheeled about the Molossian horsemen. And himselfe first aduancing vpon the spurre imbrued himselfe with the slaughter of Lacedemonians. He alwaies seemed mighty, and terrible in armes; but then he exceeded himselfe in daring and valor. For turning his Horse vpon Eualcus who shunning him, shifted aside, and with all strooke at his bridle hand as he passed by, and wanted but little of cutting it off. But missing the hand, he light vpon the raines, and carued them quite a sinder. Pyrrhus with all strooke him thorough the body with his Launce. Then leaping from his horse, and fighting a foote, hee cut in pieces the chosen Lacedemonians, that fought to recover the body of Eualcus. This was the fight that Pyrrhus made by wheeling about his Horsemen against the Lacedemonians, that followed vpon his Reare. Another example of Wheeling about is reported by Polybius, and it is of Amilcar Annibals father, this is the history. The mercenary souldiers of the Carthaginians reuolted from them, and ouerthrew some of their Generalls, and shut them vp within the Citie of Carthage, possessing both other streights, that led into the Countrey, and also a bridge laide ouer a riuer called Macar, which riuer was not passable, but by that Bridge. Besides, they built a City for defence of that Bridge. Amilcar seeking to dislodge the enemy from that Bridge, and hauing no way to come at them conueniently; obserued, that when certaine windes blew, the mouth of the riuer toward the sea was commonly filled vp with sand, and would giue passage sufficient for his armie. Finding then a fit time, hee put ouer his army in the night, and before day, or ere any man knew of it, made himselfe Master of the passage; and presently led against them, that held the bridge. Spendius (hee was one of the chiefe Rebels) hearing thereof, aduanced to meete Amilcar in the plaine, and both ten thousand from the City at the bridge foote, and fifteen thousand more from Pli-ca, came out one to aide another, thinking to wrappe in the Carthaginians betweene them; who were not aboue ten thousand Souldiers of all sorts, and 70 Elephants. Amilcar led on his armie. Before were the Elephants, the horse, and light armed followed next, the armed foote came last. And perceiuing the enemy, that followed his Reare, pressed hard vpon him, he commanded his whole armie to turne about. Those that were in the Vanguard of the march hee willed to returne to him with speede; the other, that at first had the reare, hee wheeled about, and straight opposed against the enemy. The Lybians and mercenaries imagining the Carthaginians fled for feare, fell vpon them disorderly, and boldly came

to

to hands. But when they saw the Horsemen, being now turned about, and come vp neere to the foote, and already put in order, make a stand, they themselves, by reason they looked for nothing lesse, fell into a feare, turning their backs fled presently, as before they gaue on vnaduisedly, and straglingly. And some of them falling vpon their owne people, that were coming on, wrought both theirs, and their owne destructions: other some were trampled vpon, and trode to death, by the horse, and Elephants, that followed the chafe. Thus saith Polybius. And thus farre of Wheelings. The figure, and words of command are referred for the 32 Chapter, where the manner of wheelings, and returning to the first posture is set downe.

Of filing, ranking, and restoring to the first posture.

CHAP. XXVII.

TO file is, when euery particular man keeping equall distance from other standeth in his owne file lineally betwixt the file-Leader and bringer-vp. To ranke is, to be in a right line euen with his sidemen in the length of the battaile. To restore to the first posture is, to bring the sight of the Souldier to the same aspect, he had before the first turning. As if his face were at first towards the enemy, being commanded to turne towards the Pike, and thence to returne to his first posture, hee is againe to returne his face toward the enemy.

Notes:

OF filing, and ranking enough is spoken before. To restore to the first posture] This motion differeth from Anastrophe before specified. For Anastrophe bringeth backe againe the whole body to the first place after a Wheeling: This the Souldiers faces particularly to the first aspect. So that this is used after the making of an Anastrophe. For alwaies in motions it is requisite, that the Souldiers faces moue forward. To moue backward hath many inconueniences, of stumblings vpon vnauen ground, or stones, or pittes, or stubbes, or such like. Which is the cause that in Anastrophe after a Wheeling, Ælian willeth, that the Souldiers turne their faces the contrarie way first, then moue on, till they haue recovered their first ground, then open rankes, and files, and lastly to restore to the first aspect. And as it differeth from Anastrophe so differeth it likewise from Metabole. Metabole only turned faces about, this setteth the Souldier in his former posture, not onely for his face, but for his armes, also, which are ordered as at first. The wordes wherein this motion is expressed by Ælian are Ep orthon apodounai, and Eis orthon apocatastelai, which is interpreted by Gaza in arrectum reddere, to restore vp right, by Arcerius rectum reddere, to restore right, and so the words sound. Ælian interpreteth it to set againe the Souldiers sight in the same aspect in which it stood at first: as if being placed with his face against the enemy he be commanded to turne his face to the Pike, and then againe to restore his face to his first posture, he must returne, and set his face against the enemy. Ælian therefore referreth it to the sight, he first had, which if it bee the right meaning, how can it

a Pausan. in
Atticis 43.
b Pausan. in
Corinth 89.
c Pausan. in
Corinth. 87.

be upright, or right, more in that, then in any other posture. For the Souldier not onely in front, but in flanke, and in the reare carrieth himselfe upright, or right. I doubt not, but this is may be applied to the upright standing of men, as appeareth by sundry places of Paulanias: Who reberfeth, that Mineruas Image set^a in the Temple Parthenion standeth upright, orthon estli, and in another place, that in Corinth^b in the Temple Pantheon, there were two Images of Mercurie standing upright, Ortha, ^c and that in the Temple of Fortune the image of Fortune was carued of Parian-stone, and stood upright: Orthon: and that in Neptunes Temple situate in the Corinthian Isthmus, the images of Amphitrite and Neptune stand in a Chariot, and the boy Palemon upright vpon a Dolphin, Orthos. In all wh. ch places Orthos designeth the site of men. But here, as I take, it cannot be so applied. Because in euery motion, not onely in this, the men stand vpright. How then can they be restored to their standing upright, wh: n they doe it already. I take the originall of the appellation to come from another cause, and that is from the ordering of the Pike. For when the battaile is first set in the field, euery Souldier standes with his Pike ordered, that is vpright. For to order a pike is to set the butt end on the ground before the Souldier somewhat wide of his right foote, and to hold it upright with the right hand borne euen with the shoulder. But when you beginne, or continue any motion, the manner is to aduance, or to shoulder the Pike, and so to proceede. But being commanded to returne to the first posture, it must be ordered againe. So that the first posture of an armed m. n is to stand with his pike vpright. And after many motions and windings, he at last returneth to the same posture, which I take the command of Ep' orthon apudounai to signifie. Now that I may not seeme to relie vpon a probable coniecture alone, I will bring witness for the confirmation of my opinion. It is reported by^d Diodorus Siculus, that Agefilas the Lacedemonian King with an armie of eighteen thousand foote, and fifteen hundred horse, inuaded Beotia. The Athenians before hearing of Agefilas comming had sent five thousand foote, and 200 horse to aide the Thebans, who gathering their armie together seized vpon a long narrow hill distant 20 furlongs from the City; And making the hard accesse to the place a kinde of fortification against the enemy, they there waicd his comming, fearing to hazard vpon euen ground in regard of the renowne, and glory of Agefilas. Agefilas, hauing imbattailed his troupes, led them against the Beotians, and approaching neere, sent his light armed to sound their disposition to fight, which being easily repulsed by the Thebans by the aduantage of the higher ground, hee aduanced the rest of his forces being imbattailed in such manner, as might giue greatest terror. Chabrias the Athenian willed his Souldiers to awaite the enemy contemptuously both keeping their first array, and their Targets at their knees, and continuing their Pikes upright ordered; who when they iointly as vpon a word given, did as they were commanded, Agefilas both wondering at the good order, and at the assured fashion of the enemy thought it not fit to strue with vnequall ground, and by forcing them to fight, to compell them to be vallant, whether they would, or no. Hitherto Diodorus Siculus of the Strategem of Chabrias against Agefilas, which consisted in the contempt of Agefilas, and all his forces: First in not stirring one foote, to meete the enemy, then in keeping the array they held before; further in sincking their Targets to their knees; Lastly in continuing the former order of their Pikes, that is not making ready to charge, but remaining with their Pikes ordered, as they were at first. Agefilas aduancing his armie thought to strike a feare into his enemy, Chabrias trusting to the strength of the place, scorned the Brando of Agefilas, conceiuing, he would not be so hardy to aduenture the fight vpon so great an inequality of ground. He therefore willeth the souldiers

d Diod. Sicul.
lib. 15. 473.

diers not to alter their posture, but to continue as they were. The words concerning the Pike are: En ortho to doratimenein. That is to continue their pikes vpright (En ortho) Now whether the same be the posture, that the Taciticks describe, when they speake or restoring Ep' ortho, vpright, I referre to the iudgement of the Reader. ^a Polienus remembering this Stratagem useth somewhat different words, and yet consenteth in meaning. Chabrias saith he, commanded his Souldiers not to runne out against the enemy, but quietly to stand still holding their pikes before vpright, and their Targets before their knees which they were wont to doe, when they would a little ease themselves of the weight of their Targets. Where Diodore, hath en ortho to doratimenein, to continue their Pikes vpright. Polienus hath protinomenous ta dorata ortho, holding before them their Pikes vpright. But both haue pikes vpright; and Diodorus his Continue hath relation to the Posture they were in, which Chabrias would not haue them to alter: Polienus his hold before to that they were commanded to doe. In ordering of Pikes at this day I haue shewed, that the Souldiers hold them vpright, the but end set on the ground before, and somewhat wide of their right foote. ^b Æmilius Probus revisiting this historie peruerteth the Stratagem: He saith that Chabrias forbad the Phalange to giue backe, and taught his Souldiers to receiue the enemies charge kneeling with one knee, the other set against the Target, and with the Pike abased. Wherein hee quite dissenteth from Diodore, and Polien. Diodore saith, the command was to keepe their array; Polienus not to runne forward, but quietly to stand still; Probus not to giue backe. Probus saith, they should kneele with one knee, and rest against the Target with the other; Diodore that they should hold their Targets sunke to their knees; Polienus that they should carry their Targets before at their knees. Probus that they should abase, and charge their Pikes; Diodore that they should continue, and order them vpright; Polien that they should hold their Pikes vpright. So that Diodore and Polien agree, and expound one another: Æmilius Probus bringing in a new historie dissenteth, as I said, from the other two; especially in making that to be a forme of fight prescribed by Chabrias (a simple forme to receiue the charge upon their knees) which was a contempt, to shew how little, especially in that strength of ground, he regarded Agesilaus; which contempt also made Agesilaus retire, not doubting but it proceeded from a great assurance of the enemy. Therefore as I said I take these words ep' orthon apodounai, not only to appertaine to the aspect of the Souldier, but also (and that much rather) to the erection, and ordering of Pikes.

^b Æmil. Prob. in Chabria. 105.

Of Countermarches, and the diuers kindes thereof, with the manner how they are to be made.

CHAP. XXVIII.

There are two sorts of Countermarches, one by file, the other by ranke; each of these againe is diuided into three kindes. The first called the Macedonian: The second the Lacedemonian: The third the Choraan, which is also the Persian, and the Cretan. The Macedonian is that, which leauing the ground, it first had, taketh in lieu thereof the ground, which was before the front of the Phalange, and turneth the aspect of the Souldier backward [where before it was forward.]

2 The *Lacedemonian* is that, which leauing likewise the ground it first had, taketh in steed thereof, the ground which was behinde the Reare of the *Phalange*, and turneth also the face of the Souldier the contrary way.

3 The *Persian* is the *Cretan*, and *Choraan* : This keepeth the same ground of the *Phalange*, euery souldier taking another place for that, he had, the file-Leader the place of Bringer-vp, and so the rest in order ; and turneth also the face of the Souldier the contrary way.

4 *Countermarches* by ranke are made, when a man would transerre the winges into the place of the Sections ; and the Sections into the place of the wings, to the end to strengthen the middest of the battaile. Likewise the right hand parts into the left hand parts, and the left hand parts into the right hand parts. They that feare to countermarch the *Phalange* in grosse the enemy being at hand, doe it by *Synagmas*.

I will now set downe, in what manner countermarches ought to be made.

The *Macedonian countermarch* by file is said to be, when the file-leader turneth about his face, and all the rest with the Bringer-vp go against him on the right, or left hand, and passing on to the ground before the front of the *Phalange* place themselves in order one after an other, according as the file-Leader himselfe hath turned his face. Therefore it maketh shew to the enemy appearing in the Reare, of running away : Or it is when the file-Leader turneth about his face, and the rest passing by him on the right or left hand place themselves orderly one behinde another.

But the *Lacedemonian* is, when the Bringer-vp turneth his face about, and all the rest turning also their faces, and proceeding forward together with their file-Leader order themselves proportionably in the ground, which was behinde the Reare of the *Phalange*. Wherefore to the enemy appearing behinde, it makes a semblance of falling on. Againe the *Lacedemonian* is, when the file-Leader turning his face about to the Pike, or Target transferreth the whole file to another place equall to the first ; and the rest following stand, as before, behinde him. Or else, when the Bringer-vp turneth his face about, and hee, that stood next before him, passing by on the right or left hand, is placed againe next before him, and the rest following are placed one before another in their former order till the file-Leader be the first.

The *Choraan* is, when the file-Leader turning about toward the Pike, or Target, preceedeth the file, and the rest follow, till the file-Leader haue the place of the Bringer-vp, and the Bringer-vp the place of the file-Leader. And these are the Countermarches by file.

In the same manner are *Countermarches* made by ranke in case a man would countermarch by ranke. For euery ranke Countermarching either keepeth the same ground, or changeth the right hand place, or else the left hand place, of the battaile, one of which must needes fall out, and neuer faileth,

Notes.

The two former motions are performed, one in close Order, the other in all Orders ; Epistrophe when the battaile is (but so close, that (as *Ælian* saith) a man can turne his face neither the one way, nor the other. Clisis in open Order, Order, and close Order. The two following motions, Countermarch, and Doubling, one is done in open Order, the other for the most part in open order too ; and yet sometimes in Order, and close

close order; as we shall see in due place. This Chapter handleth Countermarches, the next Doublings. Countermarch is a motion, whereby every souldier marching after other, changeth his front for the reare, or one flank for the other. For there are two kindes of Countermarches, one by file, and the other by ranke. And each of these is againe divided into three; the first called the Macedonian; the second, the Lacedemonian; the third the Chorean, or Cieran. A Countermarch by file is, when every souldier followeth his Leader of the same file; By ranke, when every souldier followeth his sideman of the same ranke in the Countermarch.

1 The Macedonian Countermarch] In this Countermarch, the purpose of the Commander is to turne the front of his battaile against the enemy that sheweth himselfe in the Reare; and withall to take the ground that lyeth before the front of the Phalange. It is called the Macedonian Countermarch (saith *Ælian*) because the Macedonians were the inventers of it. Which of the Macedonians he telleth not, but excludeth Philip, and Alexander, who both used the Lacedemonian Countermarch. And before their times I have not read of any warlike Kings of Macedonia. The manner of it is this; First all the File-leaders turne their faces about either to the right or left hand; then the next ranke passeth thorough by them on the same hand; and being come to their distances, place themselves directly behind their File-leaders, and then turne about their faces the same way. And so the third ranke after them, and the fourth, and all the rest, till the Bringers-up be last, and have taken the reare of the battaile againe, and turned about their faces. The figure expresth not well the action. For in it the Bringers-up begin first to countermarch, which according to *Ælian* should move last. Yet may this Countermarch be done, as the figure is. But I take *Ælian*'s way to be easier, and readier. And it may be also, that the Countermarch exprest in the figure is left in the text. For one of the Lacedemonian Countermarches, which proceedeth the contrary way, beginneth the motion with the File-leaders, as this doth with the Bringers-up, as wee shall straight see.

2 The Lacedemonian countermarch] In this Countermarch the proceeding is contrary to that of the former; that took the ground before the Phalange, this takes the ground after. In that the moving was from the Reare to the front, in this from the front to the reare. This is the invention of the Lacedemonians. *Ælian* describeth it to be done in two manners: One, when the Bringers-up first turne about their faces, and the next ranke likewise turning faces beginneth the Countermarch, and every man thereof placeth himselfe directly before his Bringer-up, and the third doe the like; and so the rest, till the ranke of the File-leaders come to be first: The other, when the File-leaders begin the Countermarch, and every one in their files follow them orderly. The figure expresth this last. *Ælian* preferreth the Lacedemonian Countermarch before the Macedonian: because in it the souldiers seeme to fall on, and goe to the charge; where in the Macedonian they seeme to flee. There are notwithstanding times, when it is better to use the Macedonian. As in case you meane to march on, and not to fight with the enemy, except you be compelled: Or else you seeke to gaine some ground of advantage. For the Macedonian continueth still the march, and stayeth not; the Lacedemonian returneth upon the enemy, and so looseth ground in marching. Agesilaus after victorie gotten against the Argives, against whom he stood in the right winge, hearing that the Thebans had beaten the Orchomenians in the left winge, used the Lacedemonian Countermarch against them. The words of * Xenophon sound thus: Here the strangers were about to crowne Agesilaus (thinking he had got the victory) when newes was brought that the Thebans, after they had broken the Orchomenians, had forced a passage as farre as the baggage. Then Agesilaus, countermarching his Phalange, led against them.

The

* Xenoph. hist. græc. lib. 4. 519. C.

The Thebans perceiuing their Confederates were fled vp to the mount *Helicon*, closed their troupes together, as neare as they could, seeking to open a way by force, and to get vp vnto them. *Agésilau* albeir he might by giuing way to the formost haue followed them at heeles, and charged the reare, yet did he it not, but met the Thebans front to front. Thus encountring, and clashing their Targets together they fought, thrust on, killed, and were killed. In fine some of the Thebans broke thorough to *Helicon*; other some, as they sought to escape, were left dead on the place. *Agésilau* here followed the chase vpon the Argives toward the mount *Helicon*: The Thebans vpon the Orchomenians the contrary way towards the enemies Campe. The Thebans seeing their confederates fled to the mount *Helicon*, returned toward them, *Agésilau* counter marched to meete them, met them, and fought with them. For the Countermarch he used, I make account it was the Lacedemonian, himselfe being a Lacedemonian. And he used it to meet the Thebans brauely in front. The same *Agésilau*, after he had by night incamped in a peece of ground behind *Mantineā* incompassed about with mountaines, perceiuing the next morning, that the *Mantineans* gathered together vpon the toppes, that lay right ouer the head of his Reare-gard, determined to lead his Armie out of the place with all speed. Now if himselfe should lead, he feared the enemy would giue vpon his Reare. Therefore standing still, and turning his armes against the enemy, he commanded the last of the Phalange to march backe againe from the Reare, and come vp to him; and so at once he brought his Armie out of the streights, and made it by little, and little stronger. When the Phalange was thus doubled, he proceeded in that order into the *Champeigne*, & there againe reduced the depth of the armed foote to 9 or 10 men in euery file. This place of *Xenophon*, if it be not corrupted, is very obscure. And I cannot tell whether to take it for doubling of the front, or the Macedonian countermarch. The words make for a doubling. For *Xenophon* saith plainly, the Phalange was doubled. Besides he addeth, it was made by little and little stronger; which could not be done with a Countermarch. And that a deepe Phalange, or *Hearse*, (such as this by the euening's march, and the straights it entred, seemeth to be) is made stronger by doubling the front, there is no question. On the other side, the streights, thorough which it was to passe, perswade me, it should be a Macedonian Countermarch. For in doubling the front the length still increaseth; & the manner is not to enlarge, but to extenuate the front, when an Armie is to be conueighed thorough a narrow place. And *Xenophon* saith expressly, that *Agésilau* led it thorough the streights into the *Champeigne* in that order, so which it was reduced last; & that in the Champion the depth of the Armed was lessened, and brought to 9 or 10; for there *Agésilau* imbattailed his Phalange to receiue the enemy, if he would charge. And in a march through straight waies the front is commonly narrowed, and proportioned to the way; but in open ground the Phalange is againe brought to the iust length. So that it seemeth the depth was much, before it came into the plaine; because in the plaine it was brought to 9 or 10 men, and therefore no doubling. Lastly *Agésilau*, (and the front I doubt not of the Phalange with him) turned face to the enemy, before the Reare came vp to him, which is done in no other motion, than the Macedonian countermarch. In which all the File-leaders first turne about their faces toward the enemy, and then the whole battaile marcheth against the File-leaders, and placing themselves orderly behind them, turne their faces the same way, that they haue done before. Now where it is in *Xenophon*, that *Agésilau* hauing gained the *Champeigne*, extended his Armie to 9 or 10 Targeters, I suspect a fault to be in the number of 9; and that it ought to be read 8 or 10. To extend a Phalange is to draw it out in length. the length is the space betwixt the point of both wings. When he saith he extended it to

Xenoph. hist.
græc lib. 6.
605. D.

10, the meaning is he drew it out so farre in length that he left but 10 in depth. Ten is the decas, whereof I spoke before, and I haue likewise noted, that the Lacedemonians for the most part, made the depth of their battaile 8. The number of 9, as all other vncuen numbers, was reiected by the Tactics, as vnfit for doublings. So that mine opinion is that *Xenophon* at the first wrote 8 or 10, not 9 or 10, howsoeuer 9 be crept into the place of 8. But to returne to *Agésilau*, admit he used doubling of ranks, or of the front in retiring out of the *Mantinean* straights, yet giue me leave to be of opinion, that the Macedonian Countermarch had bene the fittest motion for that purpose. For himselfe being thereby cast in the reare, he had both precluded the charge of the enemy (which he feared) and yet wounde better out of the straights, the long Herte, which still remained in the Macedonian Countermarch, being more proportionable to issue out of a narrow place, then a broad-fronted Phalange, which ariseth out of doubling the front.

3 The Persian is the Cretan or Choræan] This Countermarch is called the Persian, and Cretan, because it was used amongst the Persians and Cretans. And it was termed the Choræan also, of the similitude it had with the solemne Græcian dances vpon stages; the company, that shewed themselves in such dances being called Chorus. Whom their daunces ordered themselves into files, and ranks, as soldiers doe in battaile, and moving forward to the brinke of the stage, when being straightened by the place, they could passe no further, they retired one through the ranks of the other, exceeding not the bounds of the place, as is done in this Countermarch. The other two kinds of Countermarch changed the ground, they had before. The Macedonian took the ground before the front; The Lacedemonian the ground after the reare. The Choræan holdeth the same ground, & beginneth the motion with the File-leaders, who notwithstanding proceeded no farther, then thither, where the Bringers-up stood, their files following them, & euery souldier keeping the same distance, he had before the moving. The figure sheweth the manner of it. ^h These Countermarches by file, are to be made, when the enemy appeareth in the reare, and cometh to charge vs. And they are made to the end, to bring our best men, that is the File-leaders to the encounter. Wherein notwithstanding there is a caution to be held, that if the enemy be very neare, or so neare, that we cannot conveniently counter-march, before he come vp to vs, we forbear, lest we fall into disorder, and in disorder be easily defeated. In which case the best remedy is to turne faces about, and so receiue him. ^h Xenoph. de rep. Lacedem. c. 86. E. See 7. eo cap. 18. §. 39.

4 Countermarches by ranke are made] The ends of Countermarches by ranke are two in *Ælian*: one to strengthen the middest of the battaile; the other to strengthen the wings. If the strength of the enemies battaile, lie most in the middest, reason of warre would, that we should oppose our greatest strength against the middest. If in the wings against the wings. There is an other cause of strengthening the wings, namely if the enemy be ready to charge either of them: and this strength *Ælian* would haue giuen by the Countermarch of our best men into the wings. It shall not be from the purpose to make all plaine by an example or two. ^h Herodotus reporteth, that before the battaile of *Platæa* betwixt the Græcians, and the Persians, it was agreed betwixt the Athenians, and Lacedemonians, that where the Athenians had vanquished the Persians in the battaile of *Marathon*, and had lately slaine *Massilius* the Generall of the Persian horie; and by those encounters had good experience of the Persian manner of fight; and where the Lacedemonians were imbattailed in the right wing against the Persians, the Athenians in the left wing against the Thebans, and other Græcians, that tooke part with the Persians: they should change, and the Athenians haue the right wing, the Lacedemonians the left.

^h Herodot. in
Calliope 248.
& Plutarch. in
Aristide.

These newes were caried to *Mardonius* the Generall of the Persians; who whether fearing the Athenians, or desirous to fight with the Lacedemonians, changed his place from the left into his right wing, to the intent to oppose against them; which when *Pausanias* saw, he returned to his right wing, and *Mardonius* to his left, the place, which he had at the beginning. *Here are changing wings on both parts; The one coueting to fight in the left wing, the other desirous to fight in the right. The Countermarch by ranke from the right wing would haue fitted Pausanias: as the contrary Countermarch would haue fitted Mardonius. Yet am I led to thinke that Pausanias used a wheeling of his battaile, and so conuinged it from one wing to another behind the battaile of the other Græcians, to the end, that being shadowed by them, hee might the better hide his purpose from Mardonius. An other example I finde in Livy and Polybius both. It is this: Pub: Scipio, who was afterward called Africanus, and Asdruball the sonne of Gisgo, being incamped neare together in Spaine brought daily out of their Campes their Armies one against an other. And after they had long stood waiting, who should begin the fight, which was done at neither hand, they conueighed them backe againe. The manner of their imbattailing was this. The Romans, and likewise the Carthagineans mingled with the Africans, had the middle, their Confederates the wings. The opinion was they should fight in that order. Scipio when he perceived this to be firmly beleued, the day before he ment to fight, made an alteration of all. When night came, he gaue the word thorough the whole Campe, that horse, and men should dine, before it was light day, and that the horsemen in Armes should keepe their horses bridled, and saddled. The day was scarce sprunge, when he sent his horse, and light-armed to beat in the Carthaginian Gardes, himselfe freight followed with the armed Legions; disposing the Romans (contrary to the settled opinion of his owne people, and of the enemy) in the wings, and receiuing the Allies into the midst. Asdrubal raised out of his bed with the cry of his horsemen, had no sooner leaped out of his Tent, and seeing the tumult before the trench of his Campe, and the amazement of his people, and the Ensignes of the Legions shining a farre off, and the field full of enemies, presently sent out his whole power of horse to vndertake the Roman horse. Himselfe issued out of the Campe with his foote, not changing any thing of his wonted manner of imbattailing. The fight of the horsemen had now a long time bene doubtfull, and could not bee tried, because still, as they were beaten (which hapned a like to both) they found a safe retreat within the battailes of foote. But when the Armies were come within 500 paces one of an other, Scipio giuing a signall of Retreat, and opening his battaile, receiued all the horse, and light-armed into the midst, and diuiding them into two parts, placed them as seconds, behind the wings. Now when time was come to begin the fight, he commanded the Spaniards, who had the middle ward, to march on leasurly, and sent a messenger from the right winge (for hee commanded there) to *Syllanus* and *Martius*, willing them to stretch out the left winge, as they saw him stretch out the right; and to charge the enemy with the light-armed, and horse, before the middle wards might be able to come vp, and ioynne. The wings being thus stretched out, they led with all possible speed three Cohorts of foote, and three troupes of horse a peece, against the enemy, besides the light-armed, and those that were receiued into the Reare, who followed a thwart. There was a great empty space in the midst, because the Ensignes of the Spaniards came slowly on. And now the wings were in fight, when the old souldiers Carthaginians and Africans, the strength of the Armie, were not*

k Liv. deca. 3.
lib 8. 204. B.
Polyb. lib. 11.
640. B.

not yet come to use their darts, neither durst they runne into the wings to helpe them, that fought for feare of opening the midst of the battaile to the enemy, who was coming on against them. The wings were pressed with a double medley. The Horse, light-armed, & *Velites*, wheeling about their Troupes, charge their flanks. The Cohorts pushed on in front, to the end, to breake of the wings from the body of the battaile. And the conflict was vnequall both in all other respects, and especially because a rable, as it were of drudges, and vntrained Spaniards, were opposed against the Roman and Latin souldiers. The day being now farre spent, the Armie of Asdruball oppressed with the mornings tumult, and compelled to take the field, before they had strengthened their bodies with meat, began to faint, and faile in strength; which was the reason that Scipio lingered out the day, & made the fight somewhat late. For it was past the seventh houre, before the wings of foote attached one another: and yet the fight came later to the middle wards. So that the scorching heat of the *south sunne*, and the labour of standing armed, and hunger, and thirst, first afflicted their bodies, before they came to hands with the enemy. Therefore they stood leaning vpon their Targets, and being weary both in body, and minde, they gaue backe at last; keeping notwithstanding their array no otherwise, than as if the battaile being yet entire, had retreated at the commandement of the Generall. But when the victors, perceiuing them to shrink, so much the more eagerly pressed on, the brunt could hardly be indured any longer. And although Asdrubal restrained, and stopped them, that gaue ground, crying that hills and a safe place of retreat was at their backs, if they could be but intreated, to retire easily; yet feare overcoming shame, and the enemy killing them that were next to hand, they forthwith turned their backs, and vniuersally powred out themselves into flight. *This stratagem of Scipio resteth principally in shifting his best men (the Romans) into the wings; the Spaniards his worst into the midst; and in keeping the Spaniards aloote from ioyning; and in halting to try the day with the Romans against the weakest of the enemy. Asdrubals way to meete with this stratagem had bene to countermarch by ranke halfe his Carthaginians, and Africans into one winge, and halfe into the other. And by that meanes his Spaniards should haue had the midst against the Roman Spaniards, and his old souldiers Carthaginians and Africans bene opposed in the wings against the Romans, and Latins, and the advantage eluded, that Scipio sought.*

As the Countermarches by file were of three kindes, so are the Countermarches by ranke; namely the Macedonian, the Lacedemonian, and the Chorean. The Macedonian beginneth to moue at the corner of the wing, which is nearest to the enemy, the enemy appearing to either flanks. And therefore incurreth the same imputation, that was laid upon the Macedonian countermarch by file; as seeming to runne away, because it dismarcheth from the enemy. Yet is there use of it, as well as of that by file. For by this countermarch you may set the strongest part of your Armie against the enemy, and apply the weakest to some River, Lake, hill, or such like, so that the enemy can not come to incompass it. It taketh the ground that lieth on the side of the contrary wing. The Lacedemonian taketh the ground that lieth on the side of that wing, which is toward the enemy, and bringeth the best men to be foremost against the enemy: And therefore beginneth the moving on the contrary side. The use of it is, when your forces are such as are able to encounter the enemy, and you desire to bring your best men to fight. The Chorean keepeth the same ground the battaile had at first, & bringeth one wing to possesse the place of the other; Or also the Sections to possesse the place of the wings, as might haue bene

The Tacticks

beene done in the last example cited concerning Scipio. and Asdrubal. The manner of countermarch by ranke is contrary to the countermarch by file. In countermarch by file the motion was in the depth of the battaile, and either the front remoued toward the reare, or the reare toward the front, and tooke one an others place. In this the motion is in length of the battaile flanke-wise; the wing either marching into the middest, or else cleane thorow to the other wing. In doing it the souldiers, that stand vndermost in the flanke of the wing, must moue first to the contrary wing, and the rest of euery ranke successively follow them in order. The figure will shew the manner of the motion. Patritius utterly mistaketh the countermarch by ranke; and groundeth himselfe vpon a wrong principle, namely that in all Countermarches the File-leaders must march toward the reare, and the Bringers-up towards the front. And therefore in changing the wings into Sections, he makes the wings to fall of behind in the reare (the File-leaders wheeling about) and there to ioyne themselves as neare, as the middle Section will giue leaue, and the Sections falling backe likewise, to ioyne themselves to the flanks of them, that were the wings. Whereas the nature of this Euolution is clearly to leaue the File-leaders in front, and Bringers-up in reare, as they were at first. And albeit the File-leaders then change their places, yet change they their place with none, but with File leaders, and the change is, but a change of hands, the right hand for the left, or the left hand for the right. For whereas the File-leaders of the right wing had before the right hand, now in countermarch by ranke, being transposed to the left wing, they haue the left hand of all the rest of the File-leaders; as likewise the Bringers-up of the other bringers-up.

The words of Command may be these,

For the Macedonian Countermarch by file.

*File-leaders turne your faces about (to the right or left hand).
The rest of euery File passe thorow in order one after another, and place your selues at your
distances after your Leaders, turning your faces about; and so stand.*

For the Lacedemonian Countermarch by file.

The first manner.

*Bringers-up, turne your faces about (to the right or left hand.)
The rest turne your faces about and beginning at them, that are next to the Bringers-up,
countermarch and place your selues in your distances before the Bringers-up, and
one before an other till the File-leaders be first.*

The second manner.

*File-leaders, countermarch to the right, or left hand, and let euery mans file follow him,
and keepe true distance.*

For the Chorean countermarch by file.

*File-leaders, countermarch to the place of the Bringers-up, and stand, and let your files
follow you keeping their distance.*

For the Macedonian countermarch by ranke.

*The right or left hand corner file, turne your faces to the right, or left hand.
The rest of each ranke, passe thorough to the right, or left hand; and place your selues or-
derly behind your side-men keeping your distance.*

For

For the Lacedemonian countermarch by ranke.

The first manner.

The corner file, where the enemy appeareth, turne your faces to the right or left hand; The rest of each ranke turne your faces, and passe thorough, (to the right or left hand) and place your selues before your side-men orderly keeping your distances.

The second manner.

The right or left wing, where the enemy appeareth not, countermarch to the contrary wing, and all in the Ranks follow euery man his side-man; keeping your distance.

For the Choræan countermarch by ranke.

The uttermost corner file of the right, or left wing, countermarch into the place of the left or right winge, and stand. And the rest follow ranke-wise keeping their distance.

Of doubling, and the kindes thereof.

CHAP. XXIX.

¹ **T**Here are two kinds of doubling, one of *Ranks*, the other of *Depth*, or *files*: and ² either of these double the number, or the place. ³ The length is doubled in number when of a front of 124 files we make a front (keeping the same ground) of 248 files, by inserting in the spaces betwixt file and file, some of the followers, that stood in the depth. This is done to the end to thicken the length of the battaile. If we list to recall them to their first *posture*, we are to command those, that were inserted, to *countermarch* to the place, they had before.

⁴ There are, that mislike these *doublings*, especially the enemy being at hand; and would haue a shew of doubling made, without indeed doubling the *Phalange* already ordered, by stretching out the *light-armed*, and the *Horse*, on both sides of the *wings* of the *Battaile*. ⁵ The vse of doubling the length is, when either we would *ouer-wing* the enemy, or else our selues feare to be *ouer-winged*.

The *Depth* is doubled ⁶ by inserting the second file into the first; so that the *Leader* of the second file be placed next behind the *Leader* of the first file, and the second man of the second file be the fourth man of the first file, and the third man of the second file be the sixth in the first file, and so forth the rest, till the whole second file be ingrossed into the first; and likewise the fourth file into the third, and all the euen files into the odde.

Doubling of the *Depth* by *Countermarch* is made, either when the next *side-files* in fenerall [as in the former example the second, and the fourth, and the rest of the euen files] *countermarch* to the *Reare*, and place themselves behind the *Bringers-up* of the odde files; or else the files remayning in their first place, and number, halfe of them, diuiding themselves from the other halfe, *countermarch* likewise to the *Reare*, and conveying themselves behind the other, there order themselves, and so double the depth of the *Phalange*.

If we would returne them to the first *posture*, we must recall those, that were conveyed to stand behind, to the place they had before the *Countermarch*.

M

Notes

Notes.

THE former three Motions alter not the forme of the Phalange. For whether you turned faces, wheeled, or counter-marched the Phalange, the depth and length remained one. The motion to be expressed in this Chapter induceth an other shape to the Phalange; and maketh it seeme a different body from that it was before, being by Doubling extended either in length or in depth. For Doubling the number of men, or the place of the Phalange in front, maketh the length twise as much, and doubling the same in flanke maketh the depth double so that it was before. For Doubling is nothing else, then making a military body twise as long, or twise as deepe, as it was before.

1 There are two kinds of doubling] The Doublings are either of length or depth; Or (which is all one as ⁿ Suidas saith) of ranks or files. For ranks stretch out in length, files in depth. And these againe are divided into two other kinds, the body being

2 Doubled in number or place] That which is here called number, is called elsewhere persons; or ⁿ (by Suidas) men. It is called persons in the Insertion which is made to *Ælian*, I know not by whom, in the precedent Chapter of Countermarches. Which because it lay thrust in betwixt the description of Countermarches, and nothing pertained to that argument, I neuer made doubt, was crept into the text. And I am rather confirmed in my opinion, because I saw it noted with an Alteriske in that *Ælian* (being of Robortellus Edition) which the learned Isaac Casaubon had quoted, and purposed to set forth, if untimely death had not prevented him. I will here set downe the words, because they differ not much from *Ælian*, and may giue some light to the manner of Doubling. It is to be vnderstood (so are the words) that a Phalange is doubled in persons, or place, when we therefore take halfe the souldiers from the Depth, and making files of them, place them even with the rest in length of the front, so that of 124 files we make 248, this is Doubling of persons. In like sort we double the place with 124 files (not increasing the number) but onely commanding some to turne to the Pike, some to the Target, till the Phalange be stretched out to a convenient length, as from 5 furlongs to 10. In the same manner is the depth doubled. For either one file is inserted into an other, man for man, so that the second File-leader becomes the follower of the first, and the second man in the second file, the follower of the second in the first file, and so the rest: Or else 16 men are so extended, that they hold as much ground in length, as 32 usually doe. So farre the insertion. It followeth in *Ælian*.

3 The length is doubled in number] When the front hath twise as many files, as it had before, this is Doubling in number, or in men, or in persons. For the persons, or men, make the number in the files. And the files carrying an euen depth of men, and being doubled, double the number of the front, or length. *Ælian* speaketh but of one kinde of doubling, namely of number, and that must be done in open order, as I said before. For the files of 16 standing in open order, if you command the Middlemen (as we terme them at this day, they were called in the Macedonian files the third Enomotarchs) to double their ranks: These middle men with the hinder halfe file march vp to the front, & so doubling the front in number leaue yet the same measure of length. The figure sheweth how it is done. Yet are there two other waies, when the Phalange standeth in close order, both which double the number, and place. One is when the Middlemen diuide themselves, and one halfe with their followers turning their faces march out of the right flanke: The other of the left flanke of the Phalange. And then turning their faces againe,

fluee

fluee vp and ioyne themselves in an euen line with the File-leaders in front; The other when all the Middle turne their faces one way and march out with their followers beyond one flanke right or left; and turning faces againe fluee vp to the front, and stand euen with the File-leaders. One of these is done, when we desire to enlarge both the wings of the Phalange; the other, when but one wing. Of these two last waies, I haue set downe no figure, because I finde them not expressed in *Ælian*. Cleandridas the Lacedemonian, used yet an other kinde not spoken of by *Ælian*. ⁿ Polienus telleth the story thus: ⁿ Polienus lib 4. in Cleandridas. s. 4. Cleandridas making warre vpon the Thuriens, hauing halfe as many men againe, as they, conceiuing if they had intelligence hereof, they would hardly bee brought to fight, imbattailing his Phalange, stretched it out in depth. The Lucans therefore, contemning the small number, drew out their forces in length, with intent to ouer-front the enemy; which Cleandridas perceiuing, commanded the followers to march vp, and ranke with their Leaders; and by that meanes increased the length of his Phalange, and ouer-fronted the enemy; who being incompassed, and assailed with misseue weapons on all hands perished intirely, excepting a few, that saued themselves by shamefull flight. The words seeme obscure to a man not acquainted with the Tacticks. There are two kinde of soldiers saith *Ælian* in a file, Leaders, and followers. All the Leaders are the odde of the file; as the first, the 3, the 5, the 7, and so forth: the followers are the euen, as the 2, 4, 6, 8. Those that are in the same ranke, are called side-men. Now, saith Polien, Cleandridas willed the followers to step forward, and to ranke, and become side-men with their Leaders: that is, he willed the euen files to double their ranks with the odde; and so extenuated the depth, but increased the length of his Phalange; by which art he ouer-fronted, & inclosed the enemy on all sides. This way then to double ranks, or the length of the battaile, is to insert the euen ranks man by man into the odde. All the Doublings that haue beene rehearsed, were Doublings either in number alone, or else both in number, and place. For doubling of place alone nothing is said in *Ælian*. The Insertion I recited, supplyeth this defect: saying, the place is doubled with 124 files, onely by commanding halfe to turne to the Pike, halfe to the Target, till the Phalange be stretched to a convenient length; as from 5 furlongs to ten; which is as much to say in few words, as to open the Phalange; Or to bring it from order, to open order. For so the front possesseth double ground, to that it had before.

4 The vse of Doubling the length is] Two causes are assigned for the doubling of the length: ⁿ One to ouerwing the enemy, the other to auoide ouerwing our. ⁿ See Leo cap. selues. Cleandridas in the example aboue, performed both: For he both disappointed ⁿ the Lucans that sought to incompasse him, and besides incompassed, and inclosed them. The narrower the front is, it is the more in danger of ouer-fronting; ^p being drawne out in length it is freer from enclosing, because a greater compasse must be fetched, before it can be inclosed. Tet are we to take heed, that in doubling of the front, we giue it not so much length that it faile in depth. The want of length, or depth is alike dangerous, and giueth advantage to the enemy. I haue touched before, and quoted Leo glancing onely at his words. Now I will set them downe as they lye: ^q When the thicknes ^q Leo cap. 14. s. 108. or depth of the Phalange (saith he) is gathered vp and made more thinnie, it be-houeth not so to lengthen it, that it become altogether weake and without depth. For it will so come to passe, that the enemy shall easily cut it in peeces, and make a passage thorough it, and not onely seeke to incompasse it before, but passing thorough the middest, bee found behinde, and there in-damage it. And this it behooueth a Generall, not onely to take heede, hee suffer not himselfe, but also indeuour to put vpon his enemy.

M 2

Hithert

i Leo cap. 7.
69.

k Polyen lib 4.
in Antigono.
S. 19.

Hitherto are the words of Leo: shewing the disadvantage of a battaile too much thinned by doubling the length. But ⁱ Leo elsewhere addeth an other cause of doubling, namely to make thew a faire sight of the Armie. For the more ground it taketh in front, the more will the number appeare, and the bravery of euery man in particular discovered. Further Antigonus used also this doubling for a policie to beguile his enemy. ^k Polien reporteth the fact thus: Antigonus incamped against Eumenes with an armie inferior in number. And when messengers were sent often from one to another, Antigonus at the receipt of a messenger of the enemy, commanded one of his souldiers to come running in, as it were out of breath, and all to be-fuddled with dust, and to bring newes that his Confederates were come. Antigonus hearing the newes, leaped for ioy, and sent away the messenger. The next day he led his Armie out of his trench, doubling the length of his front. When the enemy heard of their messenger the newes, that was brought to Antigonus concerning his Confederates, and saw the length of his battaile doubled, they imagined that the depth was answerable to the front. And therefore they dislodged being afraid to ioyne with him.

5 There are that mislike] Countermarches, and Ælians doublings of number, are dangerous the enemy being ready to charge. Because the files of the Battaile must be kept in open Order till the motions be ended; which posture is not fit to receiue the charge of the enemy, as we saw out of the eleventh Chapter. The other two doublings are done in close order, whereof I made mention a litle before; The one diuiding the middle men in halfe, and flecing them up by the battaile on both sides; The other flecing them upon one side which you will, may be used without danger, as well when the enemy is neare, as when the fight is: in as much, as they disturbe not the battaile, but aduance fresh aides against the enemy on the flanks of it.

6 By inserting the second file] There are two manner of doublings of the depth or of files; one in number, the other in place. In number, when one file is inserted into another, the Leader or first man of the second file standing behind the Leader of the first; the second behind the second, the third behind the third, and so forth of the rest: Or when the euen files countermarch, and their Leaders place themselves behind the Bringers-up of the odde, their files following them; or (which cometh all to one) the files being whole, they diuide themselves into two parts in the front, and halfe countermarch, and place themselves in the Reare of the other file to file: albeit the two last are Doublings both in number and place, and not in place alone. The true Doubling of the place alone is not Ælian. The Insertion whereof I spake, remedieth this defect also. There it is said, that when 16 men (that is a file) are so extended, that they possesse as much length as 32 should doe, (that is, as 2 files) it is doubling of place, which is nothing else but changing of the Souldiers order into open order. For in their order they haue 48 foote in depth; in their open order 96 foote in depth. In this Doubling of depth we must take heed that we make not the front of our Armie too narrow lest we giue oportunitie to the enemy to incircle, and incompasse it. Polybius noteth this a great fault in Marcus Atilius Regulus, at such time as he fought with the Carthaginians, and was taken prisoner. His words haue this effect: ^k The Romans seeing the enemy order his battaile marched out against him full of courage. Being notwithstanding somewhat appalled at, and foreseeing the Elephants violence in comming on, they set their Darters before, and placed many maniples of Armed behind, one after another, and diuided the Horse halfe into one wing, halfe into the other. Then making the whole battaile shorter, but deeper, then they were wont, they provided well against the Elephants, but not against the Horse, that farre exceeded theirs

in

l Polyb. lib. 1.

in number. Being now come to hands the Roman horse ouerpressed with multitude of the Carthaginians quickly fled from either wing. But the foote of the left wing, partly auoyding the Elephants, partly contemning the Mercenaries, fell on, and charged the right wing of the Carthaginians, and putting it to flight; followed hard, and gaue chase euen to the trench. But of those, that were placed against the Elephants, the first sinking vnder the violence of the beasts, perished being ouerturned, and troden to death by heapes. The body of the battaile remained a while vnbroken by reason of the depth of them, that were after placed. But when the Reare of all, incompassed by the horse, was forced to turne about, and fight with them; and the other that had by force made way thorough the midst of the Elephants, and were now behind their backs, came vp to the fresh Phalange of the Carthaginians, standing in good order, they were by them slaine. Thus fortune being contrary on all sides, the Romans for the most part were troden to death by the excessiue might of the beasts, and the rest died with the darts of the horsemen in the place, where they fought. The error of Atilius Regulus was in ordering his battaile too deepe; by meanes whereof it was easily incompassed, and distressed by the Carthaginian horse. ^m Appian likewise blameth Antiochus for ordering his Phalange 32 men in depth, where the Macedonian Phalange ought to but 16 deepe, ⁿ Syriacis 107. B. shewing that by that oversight it was incompassed by the Romans, and ouerthrowne. I haue touched the historie in my notes before. Many other examples might be alledged, but these two are sufficient for our purpose.

The words of Command in doubling of the length by number.

Middle men double your Rankes to the right, or left hand.

By this Command the middle men with their halfe files march up to the front, in the spaces betwixt the files, and stand euen with the File-leaders, and the rest euen with the rest of the Rankes.

Doubling of the length in place.

Stand in your open order.

One halfe openeth their files to the right hand, the other to the left, and stand fix foote one from another.

Doubling of the depth in number.

Double your files to the right or left hand.

The euen files fall into the spaces of the odde files.

Double your files by countermarch to the right or left hand.

The euen files countermarch, and fall behind the reare of the odde, and place themselves lineally after them, obseruing their first distances.

Diuide your files and double them by countermarch to the right, or left hand.

Halfe the files diuide themselves from the other halfe, and countermarch out behind the Reare, then turne their faces towards the place behind the Reare of the standing files, which remoued not; then march on, and place themselves orderly behind them file to file, then turne their faces, as at first.

Doubling the depth in place.

Rankes open behind to your open order.

The broad-fronted Phalange, the deep Phalange, or Herse, and the vneuen-fronted Phalange.

CHAP. XXX.

P *Lagiophalanx*, or the *broad-fronted Phalange*, is that, which hath the length much exceeding the depth.

Orthiophalanx, or the *deep Phalange* (commonly called the *Herse*) is that, which proceedeth by *wing* hauing the depth much exceeding the length. In generall speach euery thing is called *Parasickes*, which hath length more then the depth; and that which hath the depth more, then the length, *Orthion*: and so likewise a *Phalange*.

The *Phalange Loxe*, or vneuen fronted, is that, which putteth forth one of the *wings* (which is thought fittest) toward the enemy, and with it beginning the *fight*, holdeth off the other in a convenient distance, till oportunitie bee to advance

Of Parembolè, Protaxis, Epitaxis, Prostaxis, Eutaxis, & Hypotaxis.

CHAP. XXXI.

P *Parembolè*, or *insertion* is, when placing souldiers before we take off the hindmost, and ranke them within the distances of the first.

Protaxis, or *fore-fronting*, is when we place the *light-armed* before the *front* of the *armed*, and make them *fore-standers*, as the *File-leaders* are.

When we place the light-armed behind, it is called *Epitaxis*, as it were an *after-placing*.

Prostaxis, or *adioyning* is, when to both flanks of the *battaile*, or to one flanke, some part of the hindmost is added, the front of them, that are added, lying euen with the front of the *battaile*; such addition is called *Prostaxis*.

Eutaxis, or *Insition*, is when it seemeth good to set the light-armed within the spaces of the files of the *Phalange* man to man.

Hypotaxis, or *Double-winging*, is when you bestow the light-armed vnder the wings of the *Phalange*, placing them in an embowed forme; so that the whole figure resembleth a three-fold gate, or doore.

How the motions of wheeling, double, and treble wheeling of the battaile are to be made.

CHAP. XXXII.

IT followeth to shew how a *battaile* may be turned or wheeled, and how after reduced to the first posture, or Station.

When therefore wee would accustome our Troupes to wheele the *battaile* to the

the right hand, we command the right-hand-file to stand firme, & the rest of the files to turne their faces to the right hand, and to moue close vp to the right hand file. Then to turne their faces, as they were at first: Then the hinder ranks to close forward. Then the whole battaile in that closeness to wheele about the corner-file-Leader to the right hand. This done, if neede be to reduce it to the first posture, or Station, we command euery man to turne about his face to the Target, or left hand (that is to looke the contrary way) Then to wheele about the body, that is, as it turned, closed, & ferred with the front to the right hand so to returne it againe to the place, from whence it made the wheeling; Then the file-Leaders to stand firme, and the rest to open their ranks behind; Then to turne their faces about, as they stood at first; Then the right-hand-file to stand fast, and the rest turning faces to the left hand to open their files; Then to stand; And lastly to turne their faces againe to the right hand: and so shall euery man haue his first posture.

But in case we desire to wheele to the left hand, we command the left-hand-file to stand still, and all the rest to turne their faces to the left hand; and moue forward close vp to the left hand file; Then to turne their faces as they were; Then to gather vp the hinder ranks; Then to wheele the battaile to the left hand, and stand; and so is it done, that was commanded. But if restitution to the first posture be needfull, we must doe, as we did in returning from the right. For euery man must turne about his face to the Pike; Then the whole battaile wheeling about the left-hand-corner-file-Leader must returne to the place, it had; Then all the file-Leaders stand firme, and turne about their faces, and the rest open their ranks in mouing forward and make Alte; Then the left hand file is to stand firme (for it hath the place it first had) and the rest turning their faces to the right hand to open their files, and moue forward, till they haue recovered their first distances; then to turne their faces as at first; and so shall euery man be in his first posture. Now if we would wheele the battaile about, to the pike we are to make 2 wheelings to the same side, so will it come to passe that the file-Leaders shall in the change haue their faces turned to the Reare, where before they had them looking out from the front. But in restoring to the first posture we command it to wheele about to the right hand; That is, we giue it two wheelings more the same way; So the file-Leaders will haue their faces set, as at first. Then we command the file-Leaders to stand firme, and the rest to open their ranks behind; then to turne their faces about; Then the right hand file to stand still (for it hath the right place) and the rest turning their faces to the right hand to march on, till the former distances are regained; then to make Alte. So is the battaile reduced to the first Station.

If you would haue the battaile turne about to the Target, you are to giue contrarie directions; That is, in stead of commanding a double wheeling to the Pike, to command a double wheeling to the Target; Then by making two turnes the contrary way, to vse the like changes, we spake of before.

There is likewise a treble wheeling of the battaile, when it turneth thrice to the same hand, namely to the Pike, or Target. The double wheeling to the Pike transferreth the Souldiers face from the front to the backe of the battaile: The treble wheeling to the Pike bringeth his face to the left flanke. The treble wheeling to the Target contrariwise to the right flank.

Notes.

BEfore in the 26 Chapter Ælian discoursed of wheeling, and the kindes thereof. The manner, how it is to be done, is referred for this place. I neede not therefore remember anything else, besides the words of command.

The words of command in Epistrophe.

The uttermost file on the right or left hand stand firme
The rest turne faces (to the side purposed) and march up to the file standing firme.
Faces as you were.
Close your rankes forward:
Wheele the body (to the hand appointed) and when you have your ground, stand.

Returning to the first Posture, or Anastrophe.

Faces to the right or left hand
Wheele backe the body to the ground, it first had.
File-Leaders stand firme: the other rankes open to their first place.
Faces about (to which hand you will)
The corner file (to which the turning was) stand firme, the rest open to their first ground.
Faces as you were, and order your Pikes.

Perispalmos, or wheeling about.

In wheeling about, the same wordes to close the files, and rankes, are to be used, which were used in Epistrophe, there remaineth no more, then to say
Wheele about your body, to the right, or left hand.

Anastrophe or returning to the first Posture.

Returne to your first Posture.
The same forme is used, that was held in the former returning unto the first posture for opening rankes and files.

Eperispalmos, or treble wheeling.

In this motion the same course is held, that was in the wheeling; But only that you command a treble wheeling. And the returning to the first Posture, or Anastrophe is all one, but for the same difference.

Of closing the battaile to the right, or left hand,
or to the midst.

CHAP. XXXIII.

IF we would close, or thicken the Phalange in the right wing, we are to command the right-wing-corner-file to stand still, and the rest turning faces to the Pike to advance toward the right hand; Then to set their faces as they were, and to gather up the rankes behinde. In reducing them to the first posture we are to command the file-Leaders to stand, and the rest turning about their faces to open their

their ranks behinde ; Then to turne their faces as they were ; Then the right-wing-corner-file to stand (for it hath the right place already) and the rest proceeding on to the Target to follow their Leaders, and observing their distances to turne their faces as at first. A contrarie course is to be held in thickning the *Phalange* to the left wing.

If the *Phalange* be to be closed in the midst, the *Diphlange* on the right hand must turne their faces toward the Target, and the *Diphlange* on the left hand their faces toward the Pike ; Then move forward toward the midst of the *Phalange* ; Then, after their true distance gained, to set their faces, as they were, and to gather vp the Ranks behind.

When we would reduce the *Phalange* to the first posture, wee command to turne faces about ; then to open the Ranks, and all to move on, but the first Rank ; then to turne their faces againe, and the right *Diphlange* turning to the Pike, and the left *Diphlange* to the Target to follow their Leaders, till they haue recovered their first distances. Then to set their faces, as they were.

This rule is to be obserued in all turnings about of faces, when they are made out of closings, that the Pikes be aduanced, least they hinder the Souldier in making his turning.

The light-armed are to be taught, and exercised after the same manner.

Notes.

In the 11 Chapter the distances, that ought to bee betwixt souldier and souldier, are particularly treated of. This Chapter sheweth, how they are to be gained, that is, how we are to proceede out of one distance into another. And because the open order is it, that is commonly begunne withall, it is here taught how from thence to passe to the rest, and to returne to it againe. The end of closings is spoken of before. In regard of place they are said to be of two kindes: One to the wing (right or left) the other to the midst of the *Phalange*. I cannot expresse the manner better, then by setting downe the wordes of command, or direction, which are these in

Closing to the right wing.

The right-wing-corner-file stand firme
The rest turne faces to the Pike, and move (according to the distance required) to the right hand.

Faces, as you were.

Close your hinder ranks forward, and order your Pikes.

Restoring to the first posture.

File-Leaders stand firme.

The other Ranks, turne faces about, and open behinde to the first distance.

Faces as you were.

The right-wing-corner-file stand firme; the rest turne faces to the Target, and proceede to your first distance.

Faces as you were; and order your Pikes.

Closing to the left wing.

It differeth not from the other, but that the moving is to the contrarie hand.

Closing

The Tactics

Closing to the midst of the Battaile.

*The right-wing turne faces to the Target, the left to the Pike.
Each moue up to the midst of the Phalange, and stand at the distance named.
Faces as you were.
Close the hinder rankes forward, and order your Pikes.*

Restoring to the first Posture.

*The first ranke stand firme.
The rest turne faces about, and open the rankes to the first distance.
Faces as you were.
The files next the middle section stand fast, and the right wing turne faces to the Target, the left to the Pike, and moue on till the first distance recovered.
Faces as you were, and order the Pikes.
We may not forget Elians generall rule for turning of faces out of Closings, that the Pikes be alwaies aduanced. For when you come up to the closenesse required, the Pike vpon the shoulder will hardly admit turning of the face. The like falleth out when you would open from the Closing.*

*The vse, and aduantage of these exercises
of armes.*

СНАР. XXXIV.

THese precepts of turning about of faces, of wheeling, and double wheeling of the Battaile, and of reducing it to the first posture, are of great vse in souldaine approches of the enemy, whether hee shew himselfe on the right, or left hand, or in front, or in the reare of our march. The like may bee said of *Counter-marches*; Of which, the *Macedonians* are held to bee the inuentors of the *Macedonian*; the *Lacedemonians* of the *Lacedemonian*; and for this cause either to haue name accordingly. The Histories witnesse, that *Philip* (who much enlarged the *Macedonian* kingdome, and ouercame the *Gracians* in battaile at *Cheronea*, and made himselfe Generall of *Greece*) and likewise his sonne *Alexander* (that in short time conquered all *Asia*) made small account of the *Macedonian* countermarch, vnlesse necessitie forced it; and that they both by the vse of the *Lacedemonian* became victorious ouer their enemies. For the *Macedonian* countermarch the enemy falling vpon the reare, is cause of great confusion; in as much as the hindermost dismarching toward the front, and making a shew of running away, it more encourageth, and emboldneth the enemy to follow. For feare, and pursuit of the enemy [ordinarily] accompanieth that kinde of *countermarch*. But the *Lacedemonian* is of contrarie effect. For when the enemy sheweth himselfe in the reare, the Leaders with their followers brauely aduancing, and opposing themselves, it striketh no small feare, and terror into their mindes.

СНАР.

*Of the signes of direction, that are to be giuen to the
armie, and their seuerall kindes.*

CHAP. XXXV.

WE are to acquaint our forces both foote, and horse, partly with the voice, and partly with visible signes, that whatsoever is fitting be executed, and done, as occasion shall require. Some things also are to be denounced by the Trumpet, for so all directions will be fully accomplished, and sort to a desired effect. The signes therefore, which are deliuered by voice, are most euident, and cleere, if they haue no impediment. But the most certaine, and least tumultuous, are such, as are presented to the eye, if they bee not obscured. The voice sometime can hardly be heard by reason of the clashing of armour, or trampling, and neighing of Horses, or tumult of cariage, or noyle, and confused sounds of the multitude. The visible signes also become many waies incertain, by thicknes of aire, and dust, or raine, or snow, or sun-shine, or else thorow ground, that is vneuen, or full of trees, or of turnings. And sometimes it will not be easie to find out signes for all vses, occasions cōfusions presenting new matter, to the which a man is not accustomed. Yet can it not fall out, that either by voice, or by signal, we should not giue certaine and sure direction.

*Of marching, and of diuers kindes of Battailles fit for a March: And
first of the right-induction, of the Coelembolos, and
the Triphalange to be opposed against it,*

CHAP. XXXVI.

BEing now to speake of *marshing* I will first giue to vnderstand, that some kind of *marsh* is a *Right-induction*, other some a *Deduction* on the right, or left hand; And that in a *single*, or *double*, or *treble*, or *quadruple-sided-battaile*. In a *single*, when one enemy is feared; In a *double*, when two; In a *treble*, when three; In a *quadruple*, when the enemy purposeth to giue on on all sides. Therefore the *marsh* is vndertaken sometimes in a *single Phalange*, sometimes in a twofold *Phalange*, or else in a threefold *Phalange*, or in a fourefold *Phalange*.

A *right-induction* is, when one body of the same kinde followeth another; as if a *Xenagly* lead, and the rest follow *Xenagly*-wise. Or a *Tetrarchy* lead, and the rest follow according to that forme. It is so called, when the *marsh* stretcheth it selfe out into a wing hauing the *Depth* much exceeding the length.

Against it is opposed the * *Coelembolos*, which is framed, when the *Antistomos* * Hollow
* *Diphallange* disioyneth the Leading-wings, closing the *Reare* in manner of the letter V: as the figure after placed doth teach, In which the *front* is disuenered, & *Double*
the *reare* ioyned, and knit together. *Phalange*.

For the *Right-induction* pointing at the middest of the enemies battaile, the *Coelembolos* quickly opening before serueth both to frustrate the charge of the *front*, and to clasp in, and circumuent the *flankes* of the *right-induction*.

Further-

* Treble Phalange.

Furthermore a * *Triphalange* is to be set against the *Cæmboles*, one *Phalange* fighting against one *wing* of the *Cæmboles*; The second against the other, and the middle, and third forbearing, and expecting a time fit to charge.

Of *Paragoge*, or *Deduction*.

CHAP. XXXVII.

Paragoge, or *Deduction* is, when the *Phalange* proceedeth in a *wing* not by *file*, but by *ranke*, hauing the Commanders, or *file-Leaders*, either on the right hand, which is called a *right-hand-Deduction*, or on the left hand, which is called a *left-hand-Deduction*. For the *Phalange* marcheth in a *double*, *treble*, or *quadrumple-side* according to the place, and part, it is suspected, the enemy will giue on. And both the *Paragogies* beginning the fight in flanke doe make the length double to the depth. This forme of fight was deuised to teach a Souldier to receiue heedfully the charge of the enemy not onely in front, but also in flanke.

Of the *Phalange Amphistomus*.

CHAP. XXXVIII.

* Double fronted *Phalange*.

The *Phalange* * *Amphistomus* (for it is so called, because it hath two fronts, and that part of the battaile, that is set, and advanced against the enemy, is called a front) Seeing then in this forme the middlemost are ordered backe to backe, and those in front and *reare* make head against the enemy, the one being Commanders of the front, the other of the reare, therefore it is called *Amphistomus*. It is of great vse against an enemy strong in Horse, and able to giue a hot, and dangerous charge; and principally practised against those *Barbarians*, that inhabit about theriuer *Ister*, whom they also call * *Amphippi* because they change Horses in fight.

* Horsemen that vse two horses, one spare, the other being ridden upon.

The Horse battaile to encounter this forme hath a *Tetragonall* shape, being for the purpose diuided into two *broad-squares* (they are *broad-squares*, that haue the front twice as much as the depth) And these *Squares* are opposed seuerally against the diuisions of the foot-battaile.

Of the *Phalange Antistomus*.

CHAP. XXXIX.

* Double flanked *Phalange*.

The *Phalange* * *Antistomus* is like the *Amphistomus* the forme being a little altered; so that it accustometh the souldier to resist the seuerall kinds of incursions of Horse. All that hath bene spoken concerning the former *Phalange* both for foote, and Horse agreeth with this figure also. Herein they differ, that the

the *Amphistomus* receiveth the charge in front, and reare, the *Antistomus* in flanke. But aswell in the one, as the other, they fight with long Pikes, as doe the *Alans*, and *Sauromatans*. And the one halfe of the souldiers in the files turne their faces forward, the other halfe backward, so that they stand back to backe. This forme hath two fronts, the one before, where the file-Leaders, the other behind, where the *back-Commanders* stand. And being also diuided into a *Diphalange* it maketh the fore-front with the one, and the after-front with the other *Phalange*.

Of the *Diphalange Antistomus*.

CHAP. XL.

A *Diphalange Antistomus* is that, which hath the file-Leaders placed not in *Deduction* outwardly, but inwardly face to face one against an other, and the reare-Commanders without, one halfe in a right, the other in a left-hand *Deduction*.

This forme is vsed when the Horse giue on and charge *Wedge*-wise. For the **Wedge* shooting forth into a point, and hauing the Commanders following in flanke, and endeavouring to disseuer, and breake the front of the foote, the Leaders of the foote, foreseeing their purpose, place themselues in the midst with intent either to repulse them, or else to giue them a thorough passage without losse. For the *Wedge* flieth vpon the foote in hope to charge the multitude in the midst, and to disorder the whole battaile: And the foote Commanders conceiuing well the fury of that kinde of forme, leaue a little space betwixt either front, and stand like walles on both sides, and jointly turning their faces toward the midst, giue them a fruitlesse, and empty passage.

This forme of Horse-battaile is called a *Wedge* by *TaTicks*, which was inuented by Philip King of *Macedon*, who placed his best men before, that by them the weaker fort might be held in, and enabled to the charge: as we see in a speare, or in a sword, the point whereof by reason of the sharpnesse quickly piercing maketh way for, and letteth in the middle blunt iron:

Of the *Diphalange* called *Peristomus*.

CHAP. XLI.

THE *Phalange* of the *Diphalange* **Peristomus* proceedeth by *deduction* in a wing; the oblique *deduction* on the right hand hauing the file-Leaders without, the left hand oblique *deduction* the reare-Commanders within. The figure sheweth the intent of them that fight so ordered. For the battaile going to charge, hauing beene at first *Tetragonall*, diuideth it selfe into two oblique wings (the right; and the left) of purpose to enclose the aduerser *square-battaile*. And they fearing to bee inclosed transforme themselues into two seuerall marching-*Phalanges* directing one against the right, the other against the left wing. Therefore it is called *Peristomus*, as hauing the front bent against the enemy both waies.

Of the *Diphalange* called *Homoioistomos*, and
of the *Plinthium*.

CHAP. XLII.

* A double like-
fronted Pha-
lange.

A *Diphalange* * *Homoioistomus* is so named because a whole file (that is 16 men) moving by it selfe, another file followeth it. And it is therefore called *Homoioistomus*, because they that follow, follow in a like figure.

* A fouresided-
battail square
of men and
ground.

This kinde is opposed against the *Plinthium*. * *Plinthium* is a forme of Battaille, that hath the sides equall both in figure and number. In figure because the distances are euery where equall; In number because there are as many men in length, as in depth. In this *fouresided-Battaille* are none in the flanks, but armed, without Archer, or Slinger to helpe. When therefore two *Phalanges* march together, one by another, and both haue their Leaders either in a right-hand, or left-hand *Deduction* it is called a *Diphalange Homoioistomus*.

Of the *Diphalange Heterostomus*.

CHAP. XLIII.

* A double Pha-
lange with con-
trary flanks.

A *Diphalange* * *Heterostomus* is that, which proceedeth by *Deduction*, hauing the Leaders of the former *Phalange* in a *right-hand-Deduction*, and of the following *Phalange* in a *left-hand-Deduction*: so that the battailes march counter-changeably, one hauing the Leaders in one flanke, and the other in the other: and so the rest.

Againe of the Battails called a *Rhombe*, and of the
foote-halfe moone to encounter it.

CHAP. XLIV.

THE battaille framed in forme of a *Rhombe*, was first inuented by *Ileon* the *Thessalian*, and was called *Ile* after his name; and to this forme he exercised and accustomed the *Thessalians*. It is of good vse, in that it hath a Leader at euery corner, at the point the Captaine, of the Troupe, thereare Commander behinde, and on either side the flanke commanders. The foote battaille, fittest to affront this, is the *Menoides*, or *Cressant*, hauing both the wings stretched out, and in them the Leaders, and the middest imbowed to inuiron and wrap in the Horsemen in their giuing on. Whereupon the Horsemen ply the foot a farre off with flying weapons, after the manner of the *Tarentines*, seeking thereby to dissolve, and disorder their circled frame of marching. *Tarentum* is a City of *Italy*, the Horsemen whereof are called *Acrobolists*, because in charging they first cast little *Darts*, and after come to hands with the enemy.

of

Of the Horse-bataile Heteromekes, and of the
Plagiophalange to be opposed against it.

CHAP. XLV.

THe Horse bataile * *Heteromekes* is that, which hath the *depth* double to the * *A Horse*
length. It is profitable in many respects. For seeming to cary but few in so
small a bredth it deceiuerh the enemy, and it easily breaketh his forces with the
thicknesse, and strength of the embattailing, and may without perceiuing, bee
lead thorough straight, and narrow passages.

The Foot-bataile to encounter it is called the *Plagiophalange*, or *broad-fronted*
Bataile. For being but slender in *depth* it beareth forth and extendeth it selfe in
length; so that, albeit it be broken in the midst with the charge of the Horse;
yet is nothing broken, but a little of the *depth*; and the fury of the Horse is carried
not vpon the multitude of the foote, but straight, and immediately, into the open
field. And for that cause is the *length* thereof much exceeding the *depth*.

Of another kinde of Rhombe for Horsemen, and of the
foote-Bataile Epicampios Emprosthia to
encounter it.

CHAP. XLVI.

ANother sort of *Rhomboides* there is, whereof I need say no more, but that it
fileth, and ranketh not. For I haue before shewed the vse, and that *Ileon* the
Thessalian was the inuentor; and that *Iason Medeus* husband most put it in pra&ise.
The vse thereof is great being directed, and lead, in the foure corners by the *Cap-
taine*, the *Lieutenant*, and the two flanke-Commanders. It is commonly fashio-
ned of Archers on Horsebacke, as the *Armenian*, and *Persian* manner is.

Against it is opposed the foote-bataile called * *Epicampios Emprosthia*, because * *The hollow*
the *circumduction of the front* is like an embowing. The end of this forme is to de- *fronted battaila*
ceiue and ouer-reach the Archers on Horsebacke either by wrapping them in
the void space of the front, as they charge, and giue on vpon the spurre, or else
disordering them first with their wings, and breaking their fury, by ouerthrow-
ing them finally with their ranks about the middle *Ensignes*. This kinde of Bat-
taile was deuised to entrappe and beguile. For opening the middle hollownesse
it maketh shew but of a few, that march in the *wings*, hauing notwithstanding
thrice as many following, and seconding, in the reare. So that, if the *wings* bee
of power sufficient for the encounter, there needeth no more; if not, retiring ea-
sily on either side, they are to ioyn themselves to the bulke of the Bataile.

*Of the foot-battaile called Cyrte, which is to be set
against the Epicampios.*

CHAP. XLVII.

* The connexe-
battaile.

THE Battaile to be opposed against the *Epicampios* is called * *Cyrte* of the circumference forme. This also maketh semblance of small forces by reason of the connexitie of the figure. For all round things appeare little in compasse; and yet stretched out in length, and singled, they proue twice as much, as they appeared to be: as is euident in pillars, which are round; and therefore in fight shew the one halfe, and conceale the other.

The greatest piece of skill in embattailing, is to make a shew of few men to the enemy, and indeed to bring twice as many to fight.

*Of the Tetragonall Horse-battaile and of the wedge
of foote to be opposed against it.*

CHAP. XLVIII.

* Four-square.

THE * *Tetragonall Horsebattaile* is square in figure, but not in number of men. For in *Squares* the number is not alwaies the same: and the Generall for his aduantage may double the *length* to the *depth*. The *Persians*, *Sicilians*, and most of the *Gracians* doe affect this forme, and take it to bee easie in framing, and better in vse.

* Wedge.

Against it is opposed the *Phalange* called * *Embolos*, or *Wedge* of foote, all the sides consisting of armed men. This kinde is borrowed of the Horse-mans *wedge*. And yet in the Horse-wedge, one sufficeth to lead in front, where the Foote-wedge must haue three, one being vnable to beare the sway of the encounter. So *Epaminondas* the *Theban* fighting with the *Lacedemonians* at *Mantineea*, oner-threw a mightie power of theirs by casting his armie into a *Wedge*. It is fashioned if the *Antistomus Diphalangy* in marching ioyne the front of the *wings* together, holding them open behind like vnto the letter Δ .

*Of the foot-Battaile called Plæsum, and of the win-
ding, or saw-fronted foot-battaile to
encounter it.*

CHAP. XLIX.

THE Battaile *Plæsum* hath the *length* much exceeding the *depth*. And it is called *Plæsum*, when armed foote are placed on all sides, the Archers, and Slingers, being throwne into the midst. Against this kinde of Battaile is set the *winding-fronted-battaile*, to the end that with the vnequall figure, they may
traîne

traîne out those of the *Plasium* to cope with the foremost of the *winding-fronted-battaile*, and by that meanes dissolue, and disorder the thicknesse of the same. And the file-Leaders of the *winding-battaile* are to obserue, and marke the file-Leaders of the *Plasium*, that if they still maintaine their closenesse, and fight ferred, they also incounter them in the like forme; if the *Plasium* file-Leaders seuer themselves, and spring out from their maine force, then they likewise bee ready, to meet them man to man.

Of Hyperphalangesis, and Hyperkerasis, and of Attenuation.

CHAP. L.

Hyperphalangesis, or *ouer-fronting* is, when both *wings* of the *Phalange* ouer-reach the enemies front. *Hyperkerasis*, or *ouerwinging* is, when with one of the *wings* we ouer-reach the front of the enemy. So that hee, that *ouerfronteth*, *ouerwingeth*, but hee, that *ouerwingeth*, *ouerfronteth* not. For they, that match not the enemy in multitude, may yet *ouerwing* them.

Attenuation or lessening is, when the depth of the *battaile* is gathered vp, and in stead of 16 men a smaller number is set.

Of conueying the Carriage of the Army.

CHAP. LI.

The leading of the carriage, if any thing else, is of great importance, and requireth a speciall Commander. It may bee conueyed in siue manners, either before the Armie, or behinde, or on the one flanke, or the other, or in the midst.

Before the Army, when you feare to bee charged behind. Behind the Army, when you would leade toward the enemy. When you feare to bee charged in flanke on the contrary side. In the midst, when a *hollow-Battaile* is needfull and fit.

Of the words of Command, and certaine obseruations about them.

CHAP. LII.

Last of all wee will briefly repeate the words of direction, if we admonish, first that they ought to be short, then that they ought to be without *double-signification*. For the Souldiers, that in hast receiue direction, had neede to take heede of doubtfull words, least one doe one thing, and another the contrarie. As for the

purpose: If I say *turne your face*, some it may be, that heare mee, will turne to the right, some to the left hand, and so no small confusion follow. Seeing therefore these words *turne your face* import a generall signification, and comprehend *turning to the right, or left hand*, we ought in stead of saying *turne your face to the pike*, to pronounce it thus: *To your Pike turne your face*, that is, we ought to set the particular before, and then inferre the generall. Like reason is, if you say, *turne about your face, or countermarch*. For these are also generall words; And therefore wee should do well to set the particular before. As to the *Pike turne your face about*, or to the *Target turne your face about*. Likewise the *Lacedemonian countermarch*, not the *Countermarch Lacedemonian*. For if you place the word *Countermarch* first, some of the Souldiers will happily fall to one kind, orher to another kinde of *Countermarch*. For which cause words of double sence are to be auoided, and the speciall to be set before the generall.

Of silence to be used by Souldiers.

CHAP. LIII.

BUt aboue all things silence is to bee commanded, and that heed be giuen to directions: As *Homer* specially signifieth in his descriptions of the *Graecian* and *Troian* fights.

*The skilfull Chief-taines pressed on, guiding with carefull eie
Their Armed troupes, who followed their Leaders silently,
Yet surely would haue deem'd, each one of all that mighty thronge
Had been bereft of speech, so bridled he his heedfull tongue,
Fearing the dread Commanders checke, and awfull best's among.
Thus march't the Greekes in silence, breathing flames of high desire,
And seruent zeale, to backe their friends, on foes to wreake their ire.*

As for the disorder of the *Barbarians* he resembleth it to birdes saying.

*As shoales of fowle, geese, cranes, and swannes with necks far stretched out,
Which in the stony fennes Caisters winding streames about
Share here, and there, the liquid skie, sporting on wanton wing.
Then fall to ground with clanging noise, the fennes all ouer ring:
None otherwise the Troians fill the field with heaped sounds
Of broken, and confused cries, each where tumult abounds.*

And againe:

*The Captaine marshall out their Troupes ranged in goodly guise;
And forth the Troians pace like birds, which lade the aire with cries.
Not so the Greekes, whose silence breathed flames of high desire,
Feruent in zeale to back their friends, on foes to wreake their ire.*

CHAP.

The words of Command.

CHAP. LIIII.

Thus then are we to command.

TO your Armes.

Stand by your Armes.

Cariage away from the battaile.

Marke your directions.

Seperate your selues.

Aduance your Pikes.

File and ranke your selues.

Looke to your Leader.

Reare Commander order your file.

a Keepe your first distances.

b Faces to the Pike, moue a little further, stand so, as you were.

b Faces to the Target, moue a little further, stand so.

b Faces about to the Pike, moue a little further, stand so.

c Double your Depth. To your first posture.

c Double your Length. To your first posture.

d The *Lacedemonian countermarch*. To your first posture.

d The *Macedonian countermarch*. To your first posture.

d The *Choraa countermarch*. To your first posture.

e Battaile wheele to the Pike. To your first posture.

e Battaile wheele about to the Pike. To your first posture.

a Before cap. 118

b Before cap. 25.

c Before cap. 29.

d Before cap. 28.

e Before cap. 26.

These precepts of the Art *Tacticke* (most inuincible *Cesar*) I haue laide out to your Ma^{tie}, which will be a meanes of safety to such, as shall vse them, and of the ouerthrow of their enemies.

N 4

The



THE EXERCISE OF THE ENGLISH IN

the seruice of the high and mighty Lords,
the LORDS the ESTATES of the vni-
ted PROVINCES in the Low
COUNTRIES.



THE Soldiers are diuided into two kindes, *Foote* and *Horse*. The *Foote* againe are of two kindes; *Pikemen* and *Musketiers*.

Pikemen are armed with a head-peece, a Curace and Tase defensive, and with a Pike of fiftene foote long, and a Rapier offensive. The Armour is all yron; the Pike of Ashen wood for the Steale, and at the vpper end an yron head of about a handfull long with cheekes about the length of two foote, and at the butt-end a round strong socket of yron ending in a pike, that is blunt, yet sharpe enough to fixe to the ground. The forme thereof is expressed in the grauen figure.

The *Musketier* hath a head-peece for defence, a *Musket*, the barrell of the length of 4 foote, the bore of 12 bullets to the pound; a Banelier, to which are fastned a convenient number of charges for powder (sometimes as many as 15 or 16) a lether bagge for bullets, with a pruning yron; a Rest for the *Musket* with an yron forke on the vpper end to support it in discharging, and a pike on the nether end to sticke into the ground; lastly, a Rapier. The figure of this armour also is here inserted.

These soldiors, both Pike-men, and Musketiers, are diuided into Companies; and euery Company consisteth, halfe of Pikes, halfe Musketiers. The Companies are some more in number, some lesse. Some reach to 300 men, some 200, some 100, some 90, some 80, some 70. Euery Company hath these officers of the field: A Captaine, a Lieutenant, an Ensigne, 2 Serieants, 3 Corporalls, two Drommes; and for other vses a Clerke, a Surgion, and a Prouost.

Companies are compacted into Regiments; and the Regiments commanded by Coronells. Regiments containe not alwaies a like number of Companies, some hauing 10, some 11, 12, 13, 14, 15, some 30 Companies and aboue. In euery Regiment are a Coronell, a Lieutenant Coronell, a Serieant Maior, all officers of the field; a Quarter-master, and a Prouost-martiall for other employments. It shall not be greatly to the purpose to mention higher officers, then Coronells, my principall intent being no other, then to set downe the armes and exercise of our Nation in the said vnited Provinces. Their armes are spoken of. *The*

The Exercise of a foote Companie.

First both Pikes and Muskets are ordered into files of 10 deepe. The Muskettiers are sometime placed before, sometime in flanke, sometimes in the reare of the pikes.

To exercise the motions, there are two distances to be obserued.

The first is when euery one is distant from his fellow 6 foote square, that is in file and ranke 6.

The second is when euery Souldier is 3 foote distant one from the other aswell in file, as in Ranke.

And because the measure of such distances cannot be taken so iustly by the eye, the distance of 6 foot betwixt the files is measured, when the Souldiers stretching out their armes doe touch one an others hands: and betwixt the Rankes, when the ends of their pikes come well nigh to the heeles of them, that march before. And the measure of 3 foote betwixt the files is, when their elbowes touch one another; betwixt the rankes, when they come to touch the ends of one anothers Rapiers.

For to march in the field, the distance of 3 foote from file to file is kept, and of 6 foote from Ranke to Ranke.

To order themselves in Battaile, as also to goe towards the enemy, the distance of 3 foote in file, and ranke, is obserued; and likewise to conuersion or wheeling.

The Musquetiers also going for to shoote by Rankes keep the same distance of 3 foot, but going to skirmish they goe *ala Disbandade*, which is out of order.

There is yet another sort of distance, which is not vsed, but for to receiue the enemy with a firme stand, and serueth for the pikes onely (for the Musquetiers cannot be so close in files, because they must haue their Armes at liberty) & that is, when euery one is distant from file to file a foote and a halfe, and 3 foote from Ranke to Ranke. And this last distance is thus commanded, *Close your selves thoroughly*. But it is not to be taught the Souldiers, for that, when necessitie shall require it, they will close themselves but too much, of their owne accord without command.

To begin therefore to doe the exercises, the Company is set in the first distance, to wit of 6 foote in file, and ranke, and thus is said

Stand right in your files.

Stand right in your rankes.

Silence.

These are the generall words of Command which are often to be vsed.

To the right hand.

As you were.

To the left hand.

As you were.

To the right hand about.

To the left hand as you were.

To the left hand about.

To the right hand as you were.

You must note, that when they are commanded to be as they were, they must returne thither, from whence they parted; and if they turned to the right hand, they must returne to the left, and so in countermarch.

To

To the right double your rankes.
Rankes as you were.

To the left hand double your rankes.
Rankes as you were.

To the right hand double your files.
Files as you were.

To the left hand double your files.
Files as you were.

With halfe files to the right hand double your Rankes.
Halfe files as you were.

With halfe files to the left hand double your Rankes.
Halfe files as you were.

Files to the right hand countermarch.
Files to the left hand countermarch.

To the right hand or left at discretion as you were.

Rankes to the right hand countermarch.
Rankes to the left hand countermarch.

To the right or left hand as you were.

Close your Files }
Close your Rankes } to 3 foote distance.

Understand that in Closing from the outsides to the middle the Soldier is to stand in his distance of 3 foote in file, and not closer.

To the right hand wheele.

To the left hand wheele.

Open your Rankes backwards in your double distance to wit at 12 foote, and this for a single Company.

Rankes as you were, &c. at the first.

In opening Rankes or Files, you must keepe them closed vntill the second Ranke or File beginning from the outsides haue taken their distances, and so shall the rest remaine close vntill euery Ranke or File haue taken their distances in order.

Open your files, to wit to the first distance of 6 foote.

If you will command to close files to the right hand or left hand, the outmost file standeth still, and the rest close to that file.

For the Pike with a firme stand.

Advance your Pikes.

Order your Pikes.

Slope your Pikes.

Charge

Charge your Pikes.
Order your Pikes.
Traile your Pikes.
Cheeke your Pikes.

More for the Pikes first with a firme stand and then marching.

Charge your Pikes.
Slope your Pikes.
To the right hand charge your Pikes.
Slope your Pikes.
To the left hand charge your Pikes.
Slope your Pikes.
Charge your Pikes to the Reare.
Slope your Pikes.
Order your Pikes.

This must be obserued charging your Pikes with a firme stand to set the right foote behind, and charging the Pikes marching to set the left foote before.

For the Musquet.

THe Postures in his *Excellencies* Booke are to be obserued; but in exercising you must onely vse these three termes of direction.

Make ready.

Present.

Giue fire.

Your Musquetiers must obserue in all their motions to turne to the right hand, and that they carry the mouth of their peeces high, aswell when they are shouldred, as in pruning, and also when they hold their pannes garded, and come vp to giue fire.

*The enemy before
the Vanguard.*

In advancing towards an Enemy, when they doe not skirmish loose and disbanded, they must giue fire by Rankes after this manner.

Advancing.

Two Rankes must alwaies make ready together, and aduance ten paces forward before the body, at which distance, a Sergeant (or when the body is great some other officer) must stand, to whom the Musquetiers are to come vp before they present, and giue fire, first the first ranke. And whilest the first giues fire, the second Ranke keepe their Musquets close to their Rests, and their pannes garded, and assoone, as the first are fallen away, the second presently present, and giue fire, and fall after them.

Now assoone as the first two Rankes doe moue from their places in the front: The two Rankes next them must vnshoulder their Musquets, and make ready, so as they may aduance forward ten paces as before assoone as euer the two first rankes are fallen away; and are to doe in all points as the former. And all the other Rankes through the whole diuision must doe the same by twos, one after another.

A MANNER

A manner there is to giue fire retyring from an Enemy, which is performed after this sort.

As the Troope marcheth the hindermost ranke of all keeping still with the Troope is to make ready, and being ready, the souldiers in that ranke turne altogether to the right hand and giue fire, marching presently away a good round pace to the front, and there place themselves in ranke together iust before the front: As soone as the first ranke turne to giue fire, the ranke next makes ready, and doth as the former, and so the rest. *The enemy in the Rear.*

We giue fire by the flanks thus. The vppermost file next the Enemy must be commanded to make ready, keeping still along with the body, till such time, as they be ready, and then they turne to the right, or left hand (according to the sight of their enemies either vpon the right, or left flanke) and giue fire altogether. When they haue discharged they stirre not, but keepe their ground, and charge their Peeces againe in the same place, they stand. Now as soone as the foresaid file doth turne to giue fire, the vtermost next it makes ready alwaies keeping along with the Troope till the *Bringer-up* be past a little beyond the Leader of that file, that gaue fire last; and then the whole file must turne, and giue fire, and doe in all points as the first did, and so the rest one after the other. A *Sergeant*, or if the Troope be great some other better qualified Officer must stand at the head of the first file, and as soone as the second file hath giuen fire, and hath charged, he is to lead forward the first file vp to the second file, and so to the rest one after another, till he hath gathered vp againe the whole wing, and then he is to ioine them againe in equall front with the pikes. *The enemy in flanke.*

Last of all the Troope or whole wing of Musquetiers makes ready altogether, and the first ranke without advancing giues fire in the place they stand in, and speedily, as may be, yet orderly falls away, all the ranks doing the same successively one after another. *The enemy in front. without advancing.*

Thus much of the armes and exercise of the foote.

The horse ensue.

The order and discipline holden in Horse-troopes, or in the Cavalry.

THE Cavalry hath for his Cheife the Generall, the Lieutenant Generall, and the Comissary generall.

To the Cavalry there is a Quarter-master generall, and a Pronost generall belonging; the Iustice resorteth to the Councell generall of warre of the Army.

The Cavalry is of two sorts. *Harquebusers*, and *Curassiers*.

The first haue for defensiu armes, the *Curace* pistoll prooffe, and a light head-peece. For offensiu the *Carbine* of 3 foote, 3 inches length, and the bore of 20 bullets in the pound, and *Pistolls* like vnto the *Curassiers*.

The *Curassiers* haue for defensiu Armes a compleat armour, the *Curace* pistoll prooffe. For offensiu two pistolls hauing the barrell of 26 inches in length, and the bore of 36 bullets in the pound. See the figure of Armes.

For the order in Regiments the 40 Companies entertained by the States doe make eleven Regiments.

The Regiment of the Generall hath alwaies the Vantgard, the others alternatiuely

natiuely and by turnes, and he that hath it this day, the next day after hath the Reare, the rest following in the same sort.

Those which command the Regiments are called *Coronells*. The Regiments are compounded of 3, or 4 Companies (of 3 at the least) and the Coronells Company marcheth alwaies on the left wing of the Regiment.

The Captaines receiue orders from their Coronells, as these from the Commissary Generall.

All the Companies are diuided in 3 equall parts, which are called Squadrons, and distributed to the three chiefe officers; Captaine, Cornett, and Lieutenant, hauing each of them adioyned an old Souldier, which they doe know to bee of more desert, called a Corporall.

Marching in the field, every Officer marcheth at the head of his Squadron, the Lieutenant excepted, which marcheth behind with the Quartermaster; and the third Corporall at the head of the Lieutenants Squadron.

The Companies are diuided by files, and rankes, the file 5 deepe, and no more, how strong soeuer the Company be.

They obserue that in marching in battaile they must be close together, and to doe the *Motions* there must be 6 foote distance from one Horseman to another.

The Companies being in battaile, there must be 25 paces distance left between every Company, and 50 betwixt every Regiment at the least.

The exercise of Armes for the Cavalry.

To open the Squadron you must first open the rankes and after the files.

To close the Squadron, you must first close the files, and after the rankes.

There be two sorts of distances betwixt the files; the one close, and the other open.

In the Close there must be no distance or intervalls betwixt the files, to the open there must be 6 foote betwixt every file.

Likewise there must be two sorts of distances betwixt the rankes; the Close, which must be without intervall or streete; and the Open, which must be six foote distance.

In a march it must be vnderstood, that the rankes must neuer be more opened, then the open distance of 6 foote.

And to the end that the Troope may march in good order, and obserue well their distance betwixt the rankes, without that the last may be forced to runne or goe to fast, there must be heed taken, that so soone, as the first rankes begin to march, all the Troope, and the Reare also at one time march.

The words of Command are

Open your Rankes.
Open your files.

Stand right in your rankes.
Stand right in your files.

To the right hand.
As you were.

To

To the left hand.
As you were.

To the right hand about.
To the left hand as you were.

To the left hand about.
To the right hand as you were.

Files to the right hand countermarch.
Files to the left hand countermarch.

To the right or left hand as you were.

Rankes to the right hand countermarch.
Rankes to the left hand countermarch.

Close your files.
Close your rankes.

To the right hand wheele.
To the left hand wheele.



RANKES

Faults escaped in the Booke.

Pag. 2. in the margent beneath, for *Spartianum* read *Spartianus*. Pag. 9. lin. 20. for *was*, were. & lin. 31. for *Bircenna*, *Bircenna* 3. and in the marg. lin. 40. for *Dipnosoph*, *Dipnosoph*. pag. 10. lin. 26. in marg. for *Adrian*, *Arrian*. p. 14. l. 11. in marg. for *Dipnosoph*, *Dipnosoph*. p. 15. l. 18. for *Marsilians*, *Marsillans*. p. 17. l. 47. for *plumes*, *Plumes*. p. 18. l. 49. for *conceited* by, *conceitedly*. p. 20. l. 45. for *Thures*, *Thuroot*. lin. 48. dele full. p. 22. l. for *Thofe*, *Thofe*. l. 11. for *Ochane*, *Ochane*. l. 32. dele *Then*. p. 23. l. 12. for *Divarates*, *Ditarates*. p. 27. l. for *immitation*, *imitation*. p. 28. l. 11. for *dyxwλov*, *dyxwλv*. l. 17. dele *That*. p. 29. l. 4. for *quietly*, *quietly*. l. 25. *flinges*, *flingers*. p. 30. l. 35. in marg. *Analest*. *Analest*. p. 31. l. 13. put in, it. p. 32. l. 29. & 33. for *belly*, *belly*. p. 33. l. 35. 38. 41. for *Satridas*, *Satridas*. p. 34. l. 3. for *foreble*, *foreble*. l. 19. *Popane*, *Popana*. 29. *vnfailble*, *vnfailble*. l. 42. dele *once*, & for *a* l. p. 35. l. 42. *redell*, *reduce*. p. 36. l. 40. in marg. *de bett*, *de bell*. p. 39. l. 17. *stroks*, *stroke*. p. 44. l. 12. in marg. *Enemeit*, *Enemeit*. 24. *Enomotarchas*, *Enomotarches*. 31. 33. *Prucsest*, *Peucestes*. lin. 47. after *Patricius*, a full point. p. 49. l. 27. *Bathera*, *Barbata*. 40. *leptismos*, *leptismos*. p. 50. l. 14. after *supported*, a full point. 34. *easily*, *easily*. p. 53. l. 6. *Pratax*, *Pratax*. pag. 55. l. 35. for *hauing*, *giving*. pag. 56. l. 18. *furt*, *safe*. lin. 32. 37. *Ansetans*, *Ansetans*. 41. *Then*, *Thy*. 46. a full point after *through*. p. 57. l. 31. betwixt *the*, and *examples*, put *former*. p. 58. l. 2. *Pharnabazus*, *Pharnabazus*. l. 18. after *Monoma*. *chy*, a full point. 37. *the*, *them*. 48. after *number*, a full point. p. 59. l. 6. *speedely*, *speedily*. 36. *motion*, *motions*. 39. 40. *your*, *you*. 41. after *forme*, a full point. p. 60. l. 16. *fnstb*, *fnstb*. 18. after *may be*, set the figure 2. 28. after *fort*, dele *as*, and for *a* read *4*. p. 61. l. 18. *never*, *neither*. p. 62. l. 12. after *Lydians*, a full point. p. 63. l. 15. for *500*, *5000*. lin. 22. for *800*, *8000*. p. 66. l. 26. for *500*, *400*. lin. 25. read, *when it is greatest in Xenophon bath no more*, then *100*. pag. 68. l. 35. *besides*, *to pretermis*. p. 70. l. 40. *fight*, read *marching*. p. 72. l. 1. after *Sunne-set*, read *and*. l. 37. for, *of*. p. 75. l. 19. & 27. *Lochagie*, *Lochagi*. l. 32. *Pempedarches*, *Pempedarchis*. p. 78. l. 2. & 4. *of*, *on*. p. 79. l. 11. for *fourth*, *bird*. p. 80. l. 19. insert after, *an Army*, *that* *etc.* *moveth disorderly*. & lin. 47. after *22*, insert, *foote*. pag. 82. lin. *Target*, *Targett*. lin. 30. for *6130*. read *6144*. pag. 84. l. 14. *Philopomen*, *Philopomen*. p. 87. l. 36. *Quintus*, *Quintus*. l. 37. after, *hums*. *se with*, insert, *in*. p. 88. l. 39. *ought*, *ought*. p. 90. l. 41. *they*, *thofe*. p. 92. l. 30. *twenty six*, *sixteen*. pag. 92. l. 29. after *1024 men*, insert *Two Syftremmas* *an Epimnogy* of *2048 men*. p. 96. l. 44. after, *flanker*, insert, *and front*. p. 98. l. 37. after, *Ambushes* *are*, insert, *or may be*. p. 99. l. 18. for *flights*, *flights*. p. 112. l. 44. *neaner*, *neaner*. p. 114. lin. 23. read *Epist*, *Epist*. *Hermatarchy*. p. 115. l. 34. *greater*, *great*. p. 122. l. 4. *Lacedemon*. lin. 21. a comma, after, *putting it of*. another comma, after *a funder*. p. 124. l. 19. after *proceed*, put out, *but*. p. 130. l. 28. for *and*, *but*. p. 135. lin. *Middle*, *Middle*. pag. 136. l. 4. after, *particular*, insert, *be*. lin. 20. after *doubling*, insert, *which*. p. 138. l. 15. read *Entaxu*. the folio's are false pag. 138. 139. pag. 142. l. 19. for *Chap. 24*. read *24*. pag. 153. l. 23. after *Repier*, insert *for offence*. pag. 154. l. 6. after *6*, adde *foote*. lin. 32. after, *thue*, insert, *it*. pag. 155. lin. 1. after *right*, insert, *hand*.



THE CONTENTS OF THE NOTES.

CHAP. II.

O <i>F Armes in generall.</i>	Pag. 12.
<i>Defensivæ armes of old time.</i>	ibid.
<i>Offensivæ armes.</i>	ibid.
<i>Strength of armes; therein of the matter.</i>	13.
<i>Fittnesse for the</i> { <i>body.</i>	15.
<i>field.</i>	
<i>Comelinesse.</i>	17.
<i>Three kinde of Footemen.</i>	19.
R <i>Armes of the armed.</i>	20.
<i>The forme of the Macedonian Target.</i>	20.
<i>The matter.</i>	21.
<i>The Macedonian Pike.</i>	23.
<i>The wood it was made of.</i>	ibid.
<i>Target and Pike both used together.</i>	ibid.
<i>How the Target was caried.</i>	22.
2. <i>The light-armed and their appellations.</i>	24.
1. <i>Arrowes and the Nations that were Archers.</i>	25.
<i>The estimation of Archers of ancient time.</i>	ibid.
<i>That good service might be drawne from our bowes even at this day.</i>	ibid.
2. <i>Dartes, and the diuers names giuen them.</i>	27.
<i>The matter, fashion, and force of Darts.</i>	28.
3. <i>Slingers.</i>	29.
<i>The best slingers.</i>	ibid.
<i>How farre a sling will reach.</i>	ibid.
3. <i>Targetiers.</i>	30.
<i>The forme of their Target.</i>	ibid.
<i>Their Pikes.</i>	ibid.
<i>Their other armes.</i>	ibid.
<i>The Hypaspists in the Historie of Alexander.</i>	ibid.
H <i>Orslemen.</i>	32.
<i>Cataphractes.</i>	ibid.
<i>Their, and their horses armor.</i>	ibid.
	The

The Contents

<i>Their Lance.</i>	33.
<i>Their manner in charging.</i>	ibid.
<i>Launciers.</i>	ibid.
<i>Their, and their horses armour.</i>	35.
<i>Tarentines.</i>	ibid.
<i>Their armes, and manner of fight.</i>	36.
<i>Archers on horsebacke.</i>	

CHAP. III.

<i>Levies of Souldiers.</i>	37.
<i>Considerations in Levies.</i>	ibid.
<i>What number.</i>	ibid.
<i>The heads of the Art of Warre.</i>	38.
<i>The effect of exercise in Soldiers.</i>	ibid.

CHAP. IV.

<i>Files, and the diuers significations of Lochos, a file.</i>	40.
<i>The number of Alians file.</i>	ibid.
<i>Other files more or lesse.</i>	ibid.
<i>The reason of Alians number in a file.</i>	ibid.

CHAP. V.

<i>Disposing of files.</i>	41.
<i>The best man the leader, and why.</i>	ibid.
<i>The difference betwixt the Romans, and Gracians in bringing their best men to fight.</i>	43.
<i>An Enomoty.</i>	44.
<i>The place of Enomotarchs.</i>	ibid.
<i>The Dimcrith, or Commander of the halfe file.</i>	45.
<i>The worth of the File-leader.</i>	ibid.
<i>Leo his disposing of a file.</i>	ibid.

CHAP. VII.

<i>A Phalange.</i>	48.
<i>The etymology of the name.</i>	ibid.
<i>The Phalange not alwaies of one number.</i>	ibid.
<i>The inventor of the Phalange.</i>	49.
<i>The length of it.</i>	ibid.
<i>The depth.</i>	ibid.
<i>The thicknes.</i>	ibid.
<i>The breadth.</i>	50.
<i>The wings.</i>	ibid.
<i>The middle Section.</i>	ibid.
<i>Whether there ought to be more, then one Section.</i>	ibid.
<i>The place of the light-armed.</i>	53.
<i>The</i>	The

of the Notes.

<i>The place of the horse.</i>	55.
<i>In the wings.</i>	56.
<i>In the reare.</i>	57.
<i>In the front.</i>	ibid.

CHAP. VIII.

<i>What motions transfigure the Phalange into another shape.</i>	59.
<i>The number fit for motion of the Phalange.</i>	60.
<i>The number of the Macedonian Phalange.</i>	61.
<i>The number of the light-armed.</i>	
<i>Of horse the number.</i>	

CHAP. IX.

<i>The Commander of the Phalange.</i>	65.
<i>The number of them.</i>	ibid.
<i>The double signification of the word Tetrarchy.</i>	ibid.
<i>The manifold signification of Taxis.</i>	ibid.
<i>And of Syntagma.</i>	66.
<i>The officers of the Syntagma.</i>	67.
<i>The Ensigne.</i>	ibid.
<i>The beginning of Ensignes.</i>	ibid.
<i>Why they are borne.</i>	ibid.
<i>The forme of the Ensigne.</i>	68.
<i>The matter of the Ensigne.</i>	ibid.
<i>The place of the Ensigne-bearer in fights.</i>	69.
<i>The Trumpet, and use thereof amongst foote.</i>	70.
<i>It was the signall instrument of the Gracians.</i>	ibid.
<i>The Drumme.</i>	ibid.
<i>How it came into Europe.</i>	ibid.
<i>The Lacedemonians used both Flute, and Trumpet.</i>	71.
<i>The place of the Trumpet in Battaille.</i>	ibid.
<i>A Sergeants duty.</i>	ibid.
<i>Qualities requisite in a Sergeant.</i>	ibid.
<i>His dignity.</i>	ibid.
<i>His place in fight.</i>	ibid.
<i>A Cryers office.</i>	ibid.
<i>His place in fight.</i>	72.
<i>The tetragonall forme of a Syntagma.</i>	73.
<i>The number of the Chiliarchy.</i>	ibid.
<i>The Roman Tribuneship and it differ.</i>	ibid.
<i>Our Coronells come neerer the Chiliarch.</i>	ibid.
<i>Whether it were first instituted by Alexander at Babilon.</i>	ibid.
<i>The Persian Chiliarch.</i>	74.
<i>The Merarchy.</i>	ibid.
<i>The Phalangarchy.</i>	ibid.
<i>The bodies military of the Lacedemonians.</i>	75.
<i>Of the Athenians.</i>	ibid.

The Contents

<i>Of Cyrus in Xenophon.</i>	ibid.
<i>Of Yrbicius.</i>	ibid.
<i>Of Julius Pollux.</i>	ibid.
<i>The number of the officers of Alians Phalange.</i>	76.
CHAP. X.	
<i>The places of the officers of the Phalange.</i>	
<i>All the Commanders in front.</i>	77.
<i>Alternative Commanders.</i>	ibid.
<i>The place of the Generall.</i>	ibid.
<i>Of the Phalangarches.</i>	ibid.
<i>Of the Merarches.</i>	78.
<i>Of the rest.</i>	79.
CHAP. XI.	
<i>Distances.</i>	80.
<i>Open order.</i>	ibid.
<i>Order.</i>	81.
<i>Close order.</i>	ibid.
<i>The ground a Phalange possesseth in eche order.</i>	82.
CHAP. XII.	
<i>The matter of the Macedonian Target.</i>	83.
<i>The hollowesse.</i>	ibid.
<i>The breadth.</i>	ibid.
<i>The length of the shortest pike.</i>	ibid.
<i>Advantage of long pikes.</i>	ibid.
CHAP. XIII.	
<i>The strength of the Macedonian Phalange.</i>	85.
<i>The conquests of King Philip, and Alexander his Sonne.</i>	ibid.
<i>Battailles wherein the Romans beate the Macedonians.</i>	86.
<i>Proofe of the Macedonian imbattailing against the Romans.</i>	87.
<i>Distance betwixt soldiour, and soldiour in fight.</i>	89.
<i>How much of the length of the pike is lost in charging.</i>	90.
<i>How the pikes of the sixth ranke, and the other after them are to be held in fight.</i>	ibid.
<i>The pikes of the Reare longer, than those in front.</i>	ibid.
CHAP. XV.	
<i>The place of the Light-armed.</i>	91.
<i>The place of Targetiers.</i>	92.
<i>The File of the Light-armed.</i>	ibid.
CHAP. XVI.	
<i>The names of the Light-armed.</i>	ibid.
<i>The cause of impropriety of names.</i>	ibid.
<i>The curiosity of the Gracians in their names.</i>	93.
<i>Whether there were Captaines of the Centuries of the Light-armed.</i>	ibid.
<i>The bodies of the Armed and light-armed compared.</i>	ibid.
CHAP. 17.	

of the Notes.

CHAP. XVII.	
<i>The use of light-armed.</i>	95.
<i>Light-armed ioyned with the Armed.</i>	ibid.
<i>The light-armed good —</i>	
<i>To prouoke the enemy,</i>	96.
<i>To wound a farre of,</i>	ibid.
<i>To disarray,</i>	97.
<i>To repulse horse,</i>	98.
<i>To beate in the enemies light-armed,</i>	ibid.
<i>To discover suspected places,</i>	ibid.
<i>For farre and speedy attempts.</i>	99.
CHAP. XVIII.	
<i>The forme of Horse-battailles.</i>	ibid.
<i>The seruice of Horse.</i>	100.
<i>The Thessalian horsemen.</i>	101.
<i>The fable of Centaures.</i>	ibid.
<i>The Rhombe.</i>	102.
<i>Whether the Rhombe or Square be better in Horse.</i>	ibid.
<i>The Wedge.</i>	104.
<i>Whether the Rhombe or Wedge be better.</i>	ibid.
<i>Diuers kindes of Squares.</i>	105.
<i>The Square in figure.</i>	ibid.
<i>The depth in the Square.</i>	106.
<i>The Square in number.</i>	107.
CHAP. XIX.	
<i>Diuers formes of Rhombes.</i>	ibid.
<i>A Rhombe filing and ranking.</i>	108.
<i>A Rhombe neither filing nor ranking.</i>	109.
<i>A Rhombe filing not ranking.</i>	110.
<i>A Rhombe ranking not filing.</i>	ibid.
CHAP. XX.	
<i>The Horse-troupe of the Macedonians.</i>	111.
<i>The number, and manner of framing it.</i>	ibid.
<i>The place of the Cornett.</i>	ibid.
<i>The distance betwixt horse, and horse.</i>	112.
<i>The distance betwixt Troupe, and Troupe.</i>	113.
CHAP. XXV.	
<i>Turning of Soldiours faces.</i>	117.
<i>The end of this motion.</i>	118.
<i>Two turnings, or Metabole.</i>	119.
<i>Turning to the Pike, or Target.</i>	ibid.
<i>Turning to the enemy, or from the enemy.</i>	ibid.
<i>The words of direction in this motion.</i>	120.
CHAP. 26.	

The Contents of the Notes.

CHAP. XXVI.

<i>Wheeling the battaile.</i>	120.
<i>How it is done.</i>	121.
<i>A Treble wheeling.</i>	ibid.
<i>The end of this motion.</i>	ibid.
<i>Examples of double wheeling.</i>	122.

CHAP. XXVII.

<i>To restore to the first posture.</i>	123.
<i>What ἐπὶ τὸν ἀρχαῖον σημαίνει.</i>	ibid.

CHAP. XXVIII.

<i>Countermarches.</i>	125.
<i>The Macedonian Countermarch by file.</i>	127.
<i>The Lacedemonian.</i>	ibid.
<i>The Choraan.</i>	129.
<i>Countermarches by rank.</i>	132.
<i>The words of direction.</i>	ibid.

CHAP. XXIX.

<i>Doubling.</i>	133.
<i>The length doubled in number.</i>	134.
<i>The use of it.</i>	135.
<i>The danger of it the enemy being nigh.</i>	136.
<i>The Depth doubled.</i>	ibid.
<i>The words of command in this motion.</i>	137.

FINIS.

1 File



2 Files Joined



4 Files Joined



The rank of
one to
The Front

The Flank

File leaders being saluted
and/or

Cap. 5
The ordering of a File

4 Enomoty

3 Enomoty

2 Enomoty

1 Enomoty

Dim. or rite

2 Dimery or half File

1 Dimery or half File

1st File-leader

1st bringer up and
4 Enomotarcha

2 leader

1 follower

1 leader

2 follower

2 leader

1 follower

3 Enomotarcha

2 follower

2 leader

1 follower

2 Enomotarcha

2 follower

2 leader

1 follower

1st Fileleader and first
Enomotarcha

1 File



2 Files Joyned



4 Files Joyned



The flank

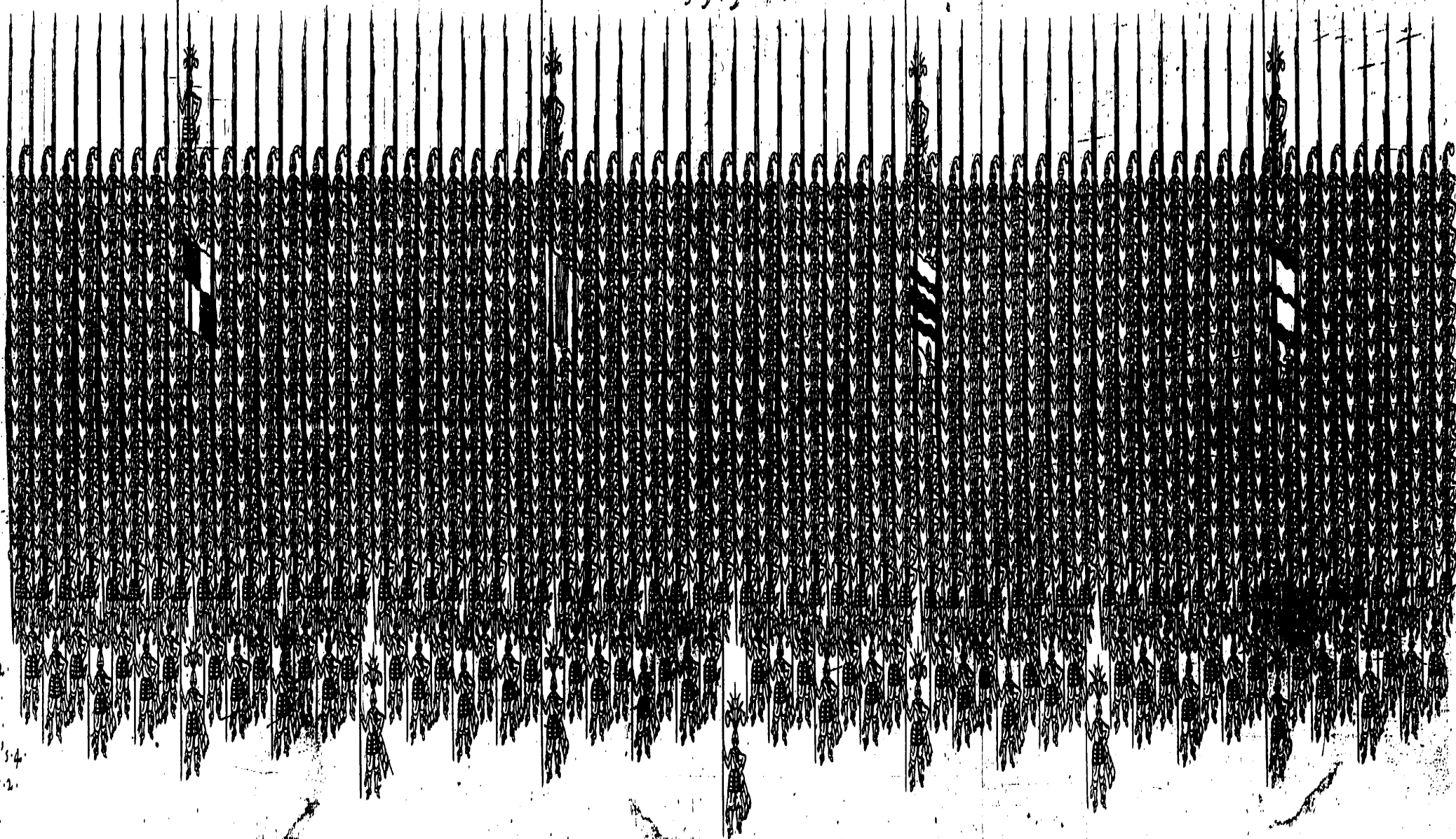
The rank of
one to

The Front

File leaders bang yelmen
and so



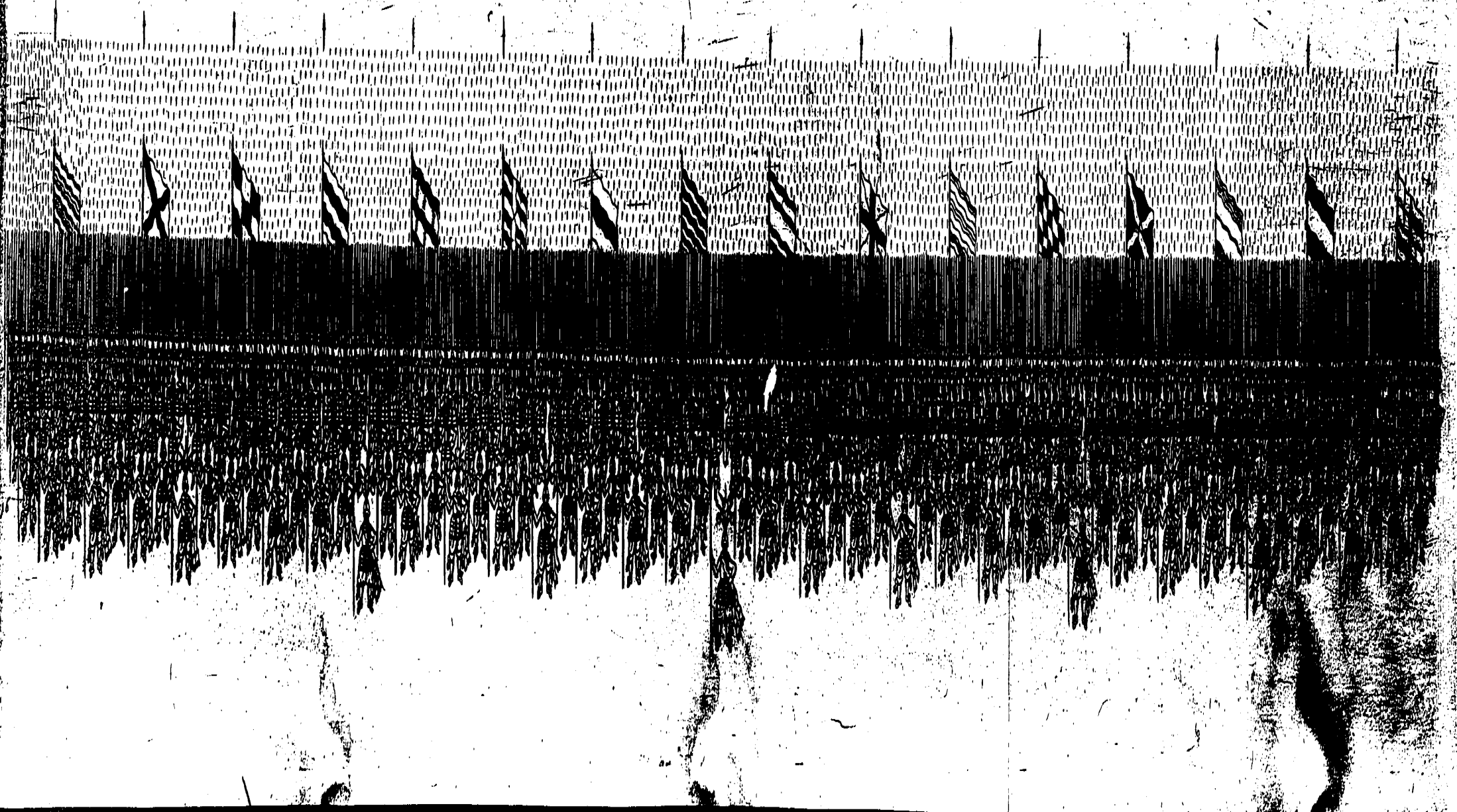
Cap. 9.
A Chierarchy of 64 files 1024 men



Dilectus 32.
Fiduciaris 16.
Fiduciaris 8.
Fiduciaris 4.
Fiduciaris 2.
Fiduciaris 1.

Cap. 9.

A Phalanx of 256 files 4096 men.



Cap. 9
The Rear

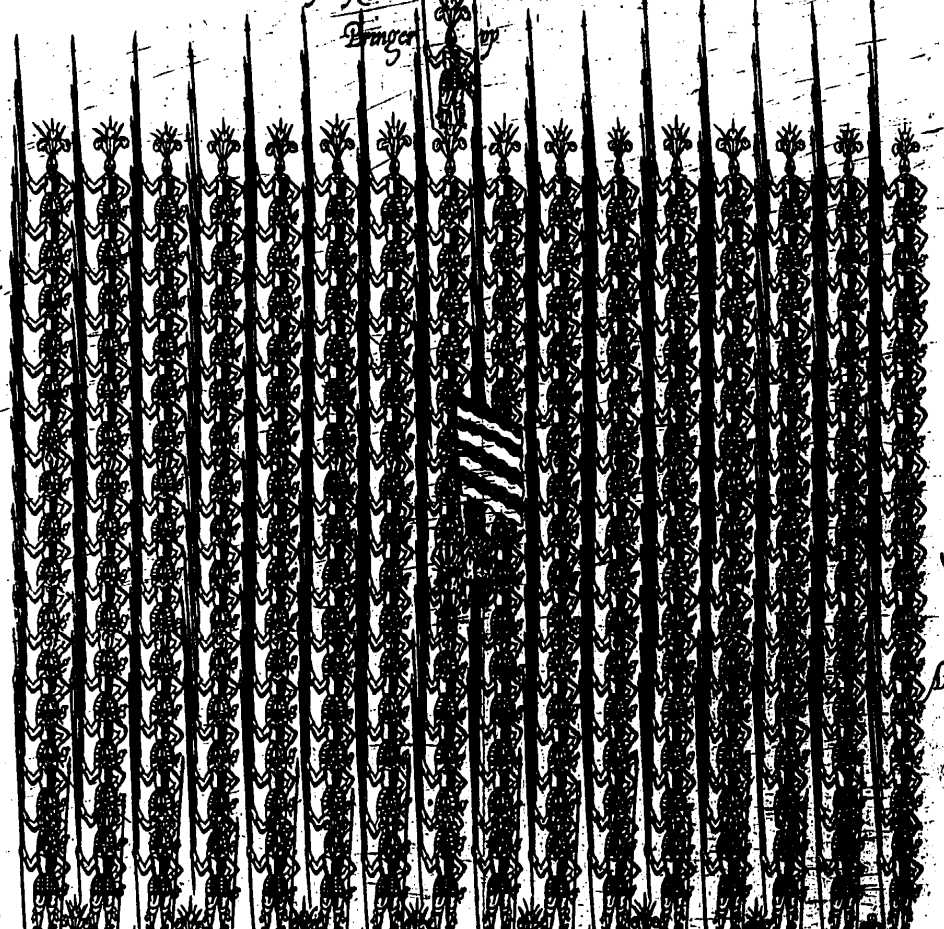
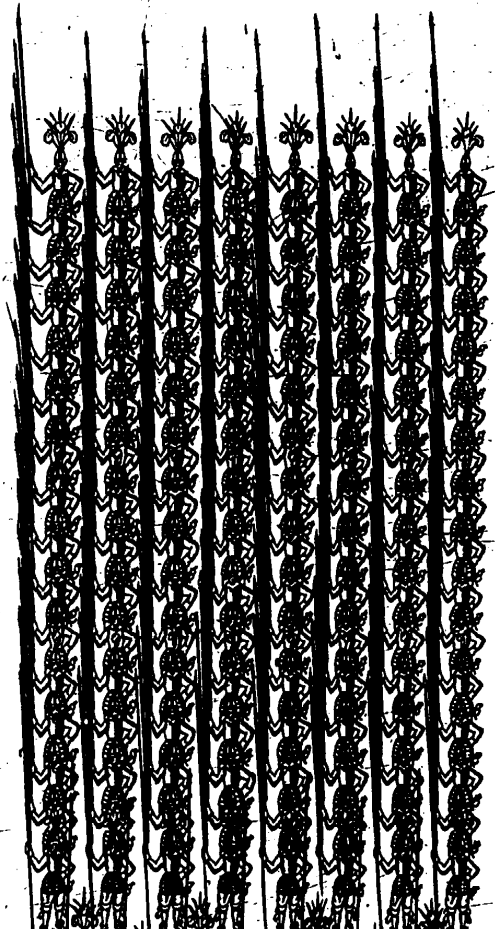
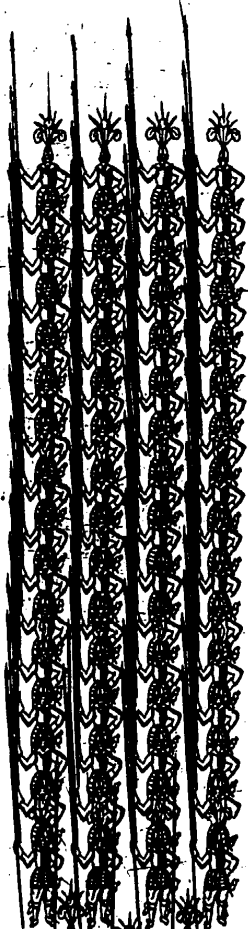
Ἄ. Dilochy of
2 files 32 men

Ἄ. Tetarchy of
4 files 64 men

Ἄ. Taxis of
8 files 128 men

Ἄ. Syntagma of
16 files 256 men

The Rear-commander or
Bringer up



Ἄ. Seneant

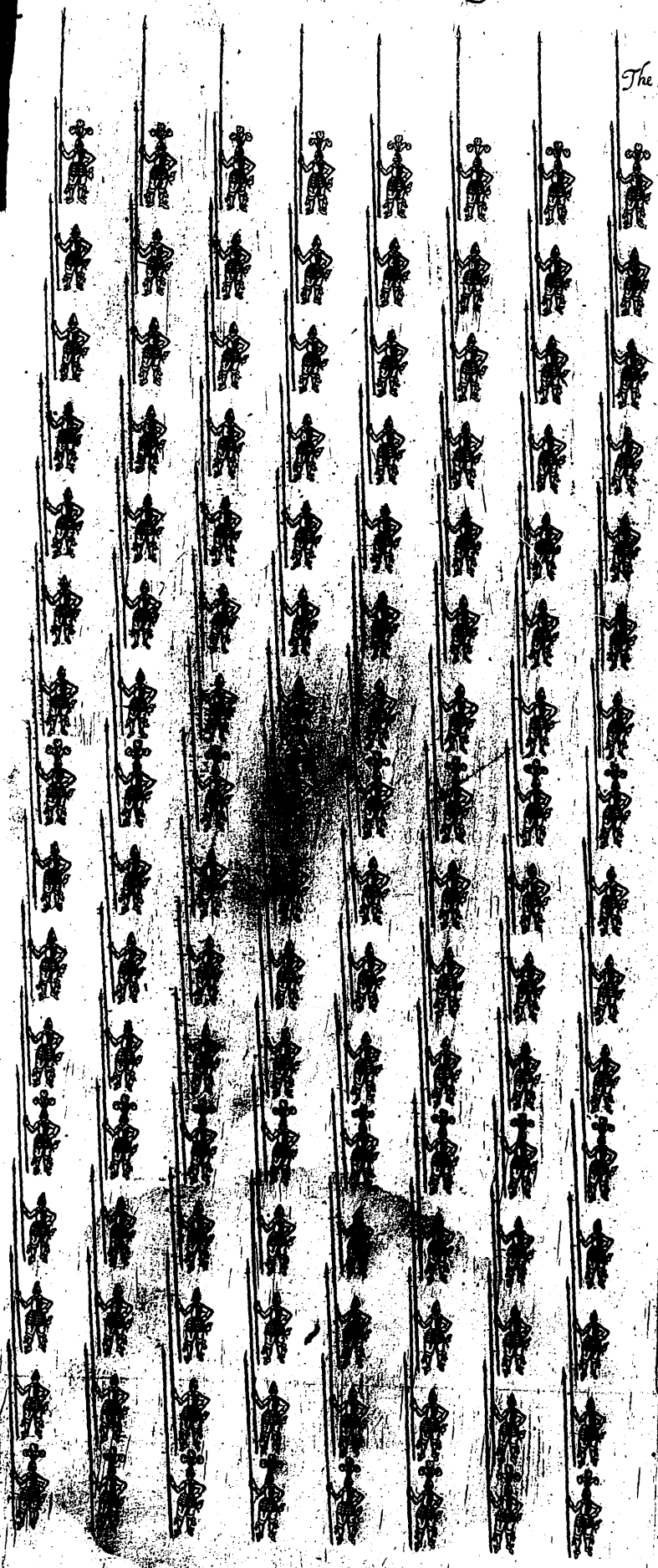
Dilochate or Commander
of 2 files

Ἄ. Tetarch or Commander
of 4 files

Ἄ. Tactarch or Commander
of 8 files

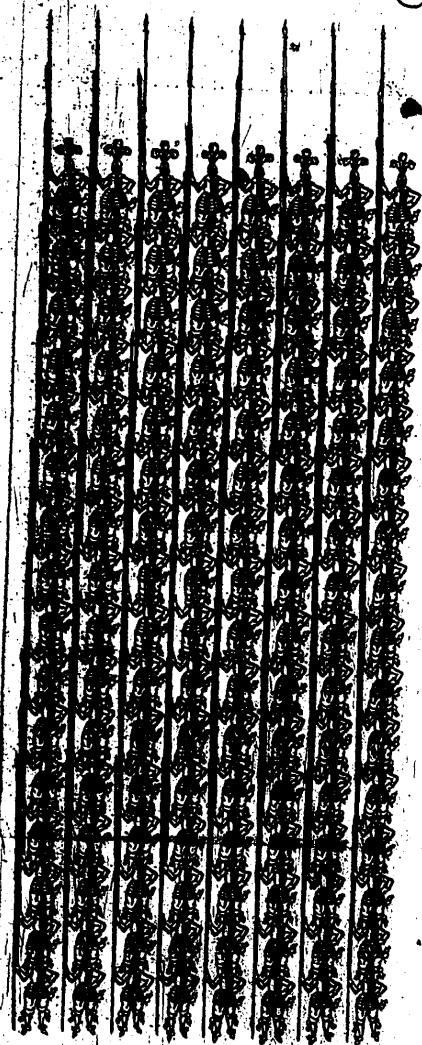
Ἄ. Syntagmarch or Commander
of 16 files

The first distance ordinary 6 feet
in file as much in rank

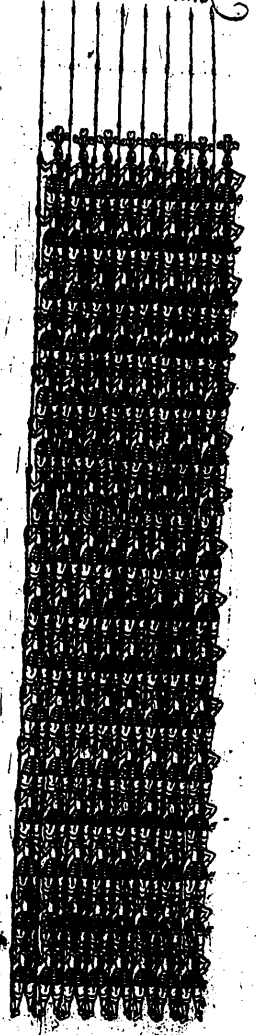


The Rear

The second distance called closing
2 feet in file as much in rank



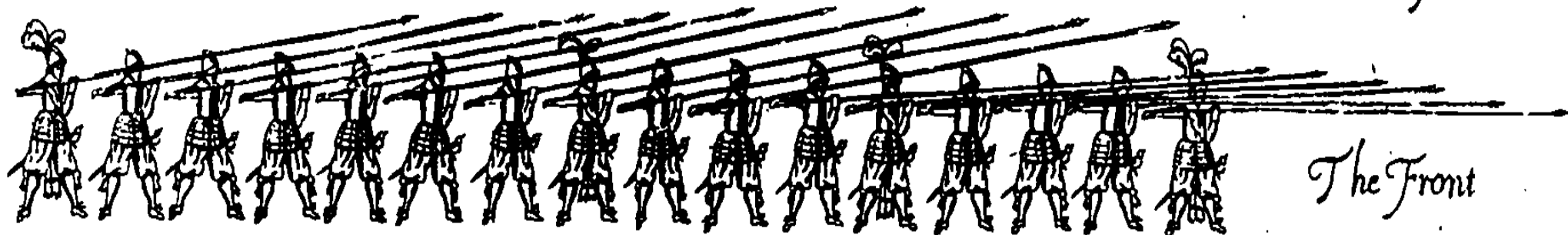
The third distance called shutting
or forming 2 feet in file Shoulder
to Shoulder in rank



The Front

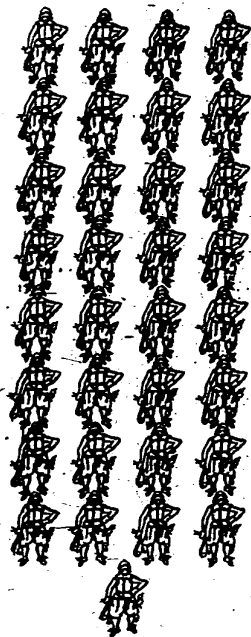
Cap. 14.

Pikes reaching
over the Front

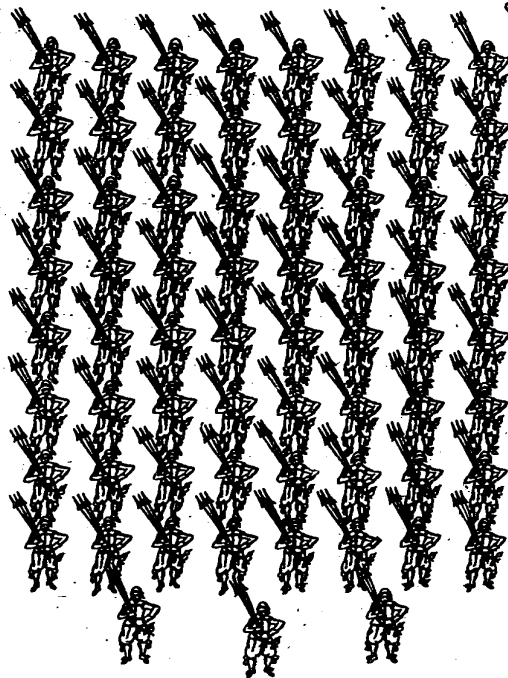


The Front

A Syllabus



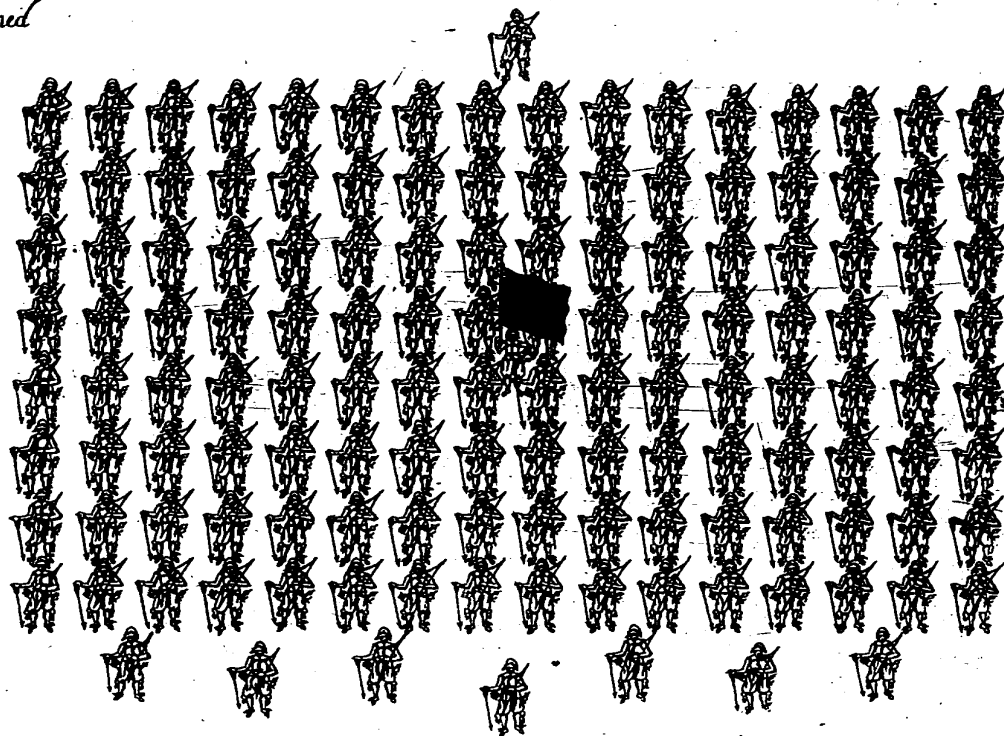
A Pentecostarchy



Cap. 16

The light Armed

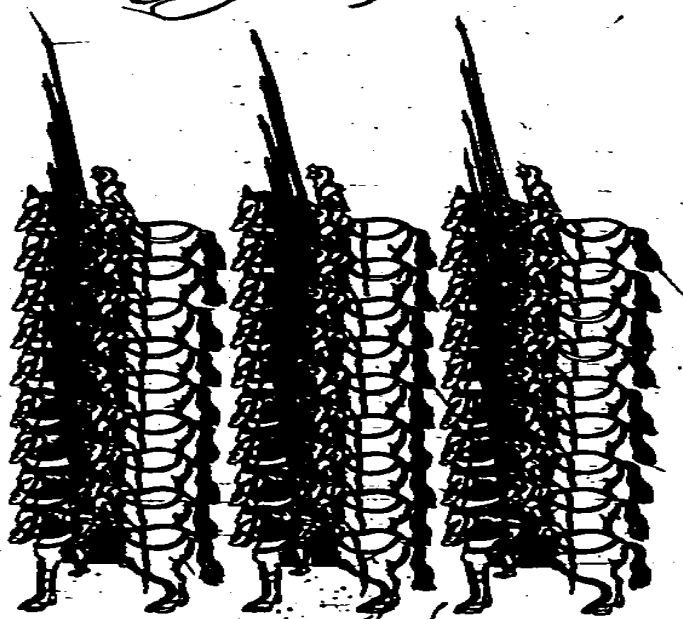
A Century



The Front

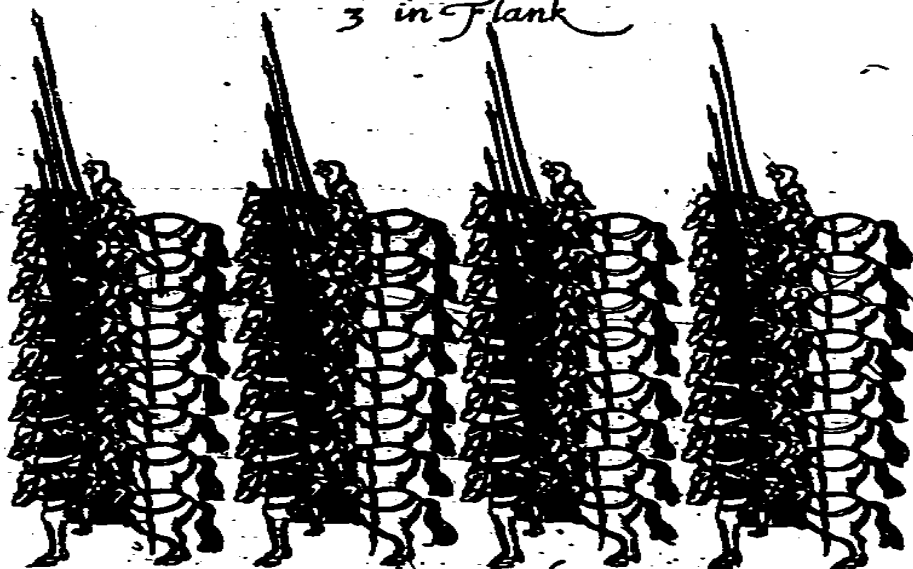
Cape 18
The Square

9 in Front



3 in Flank

8 in Front



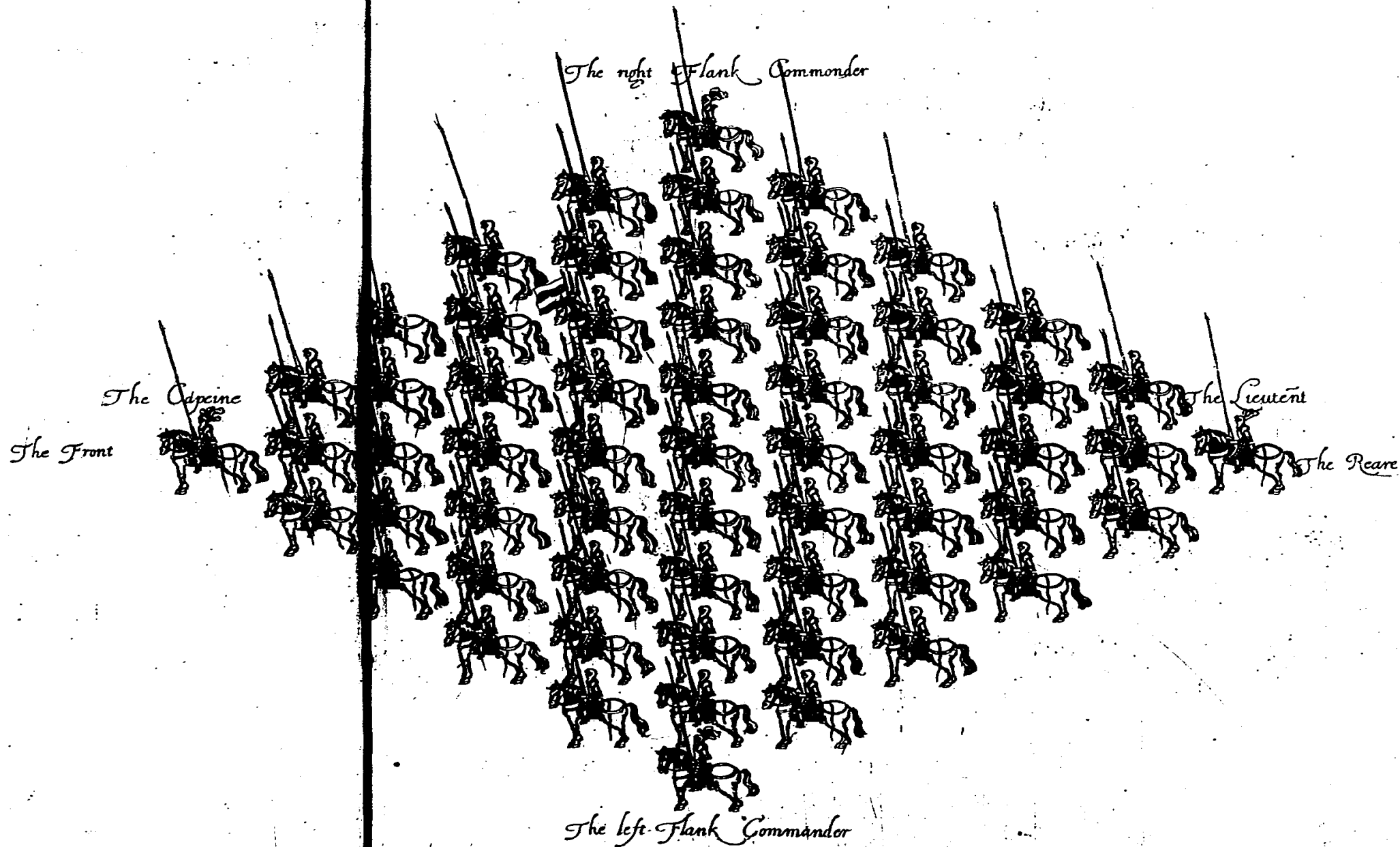
4 in Flank

10 in Front



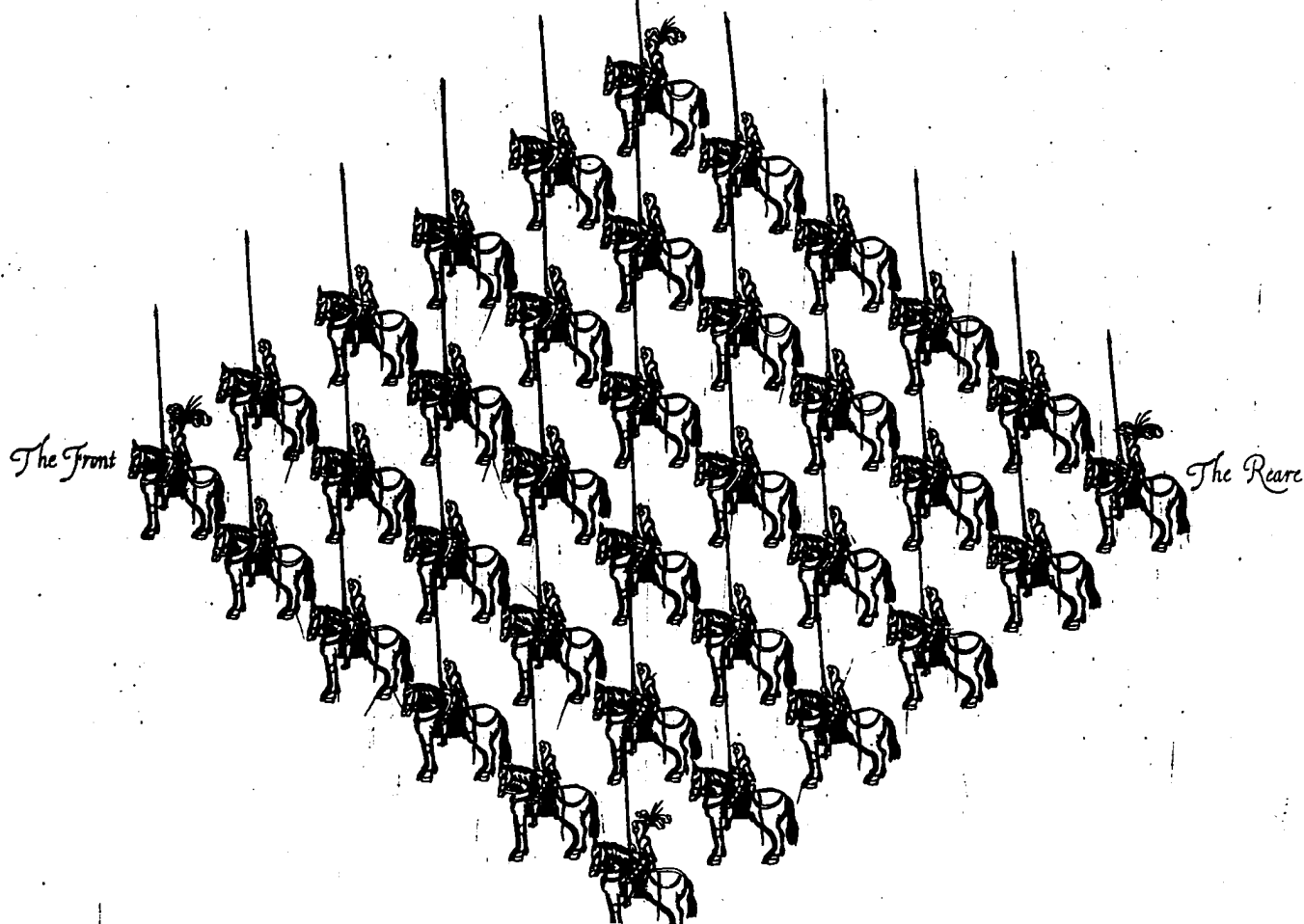
5 in Flank

A Rhombe of Horse.



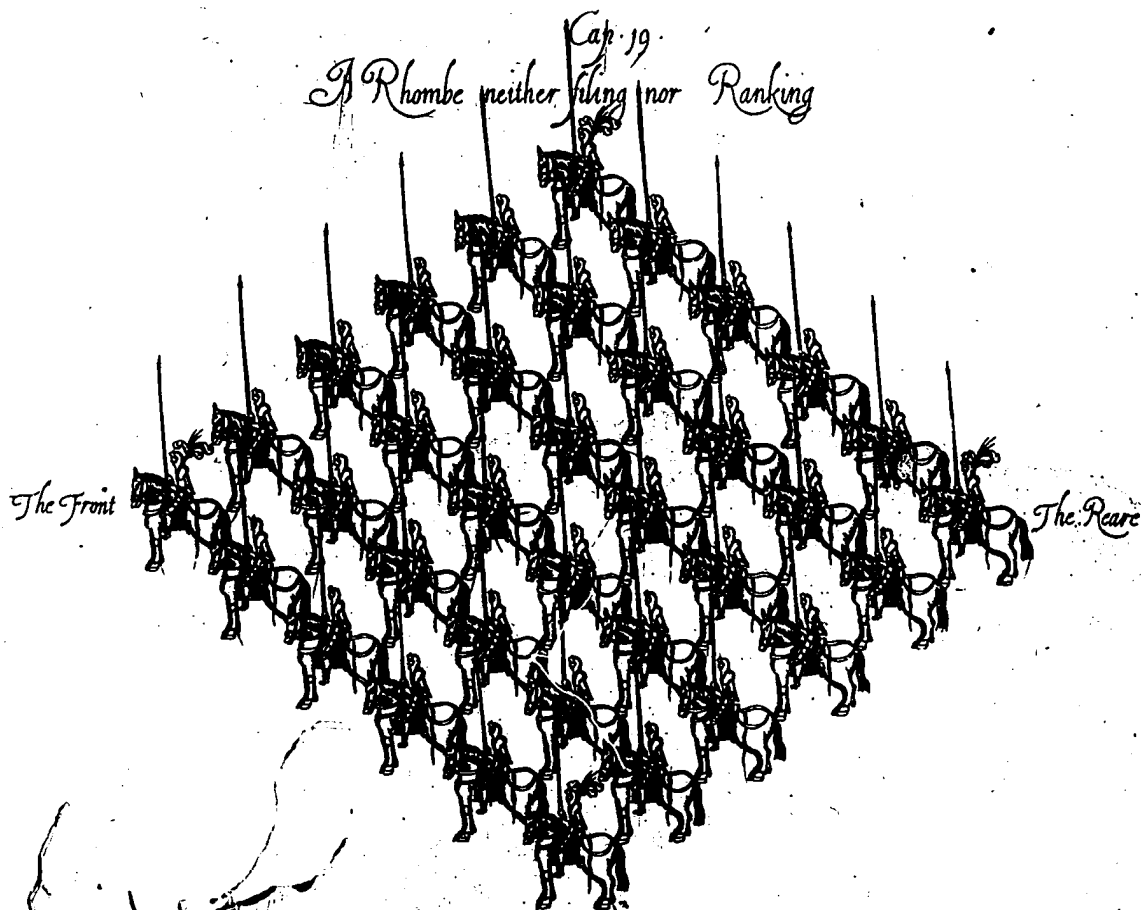
Cap. 19.

A Rhomb Ranking but not Filing

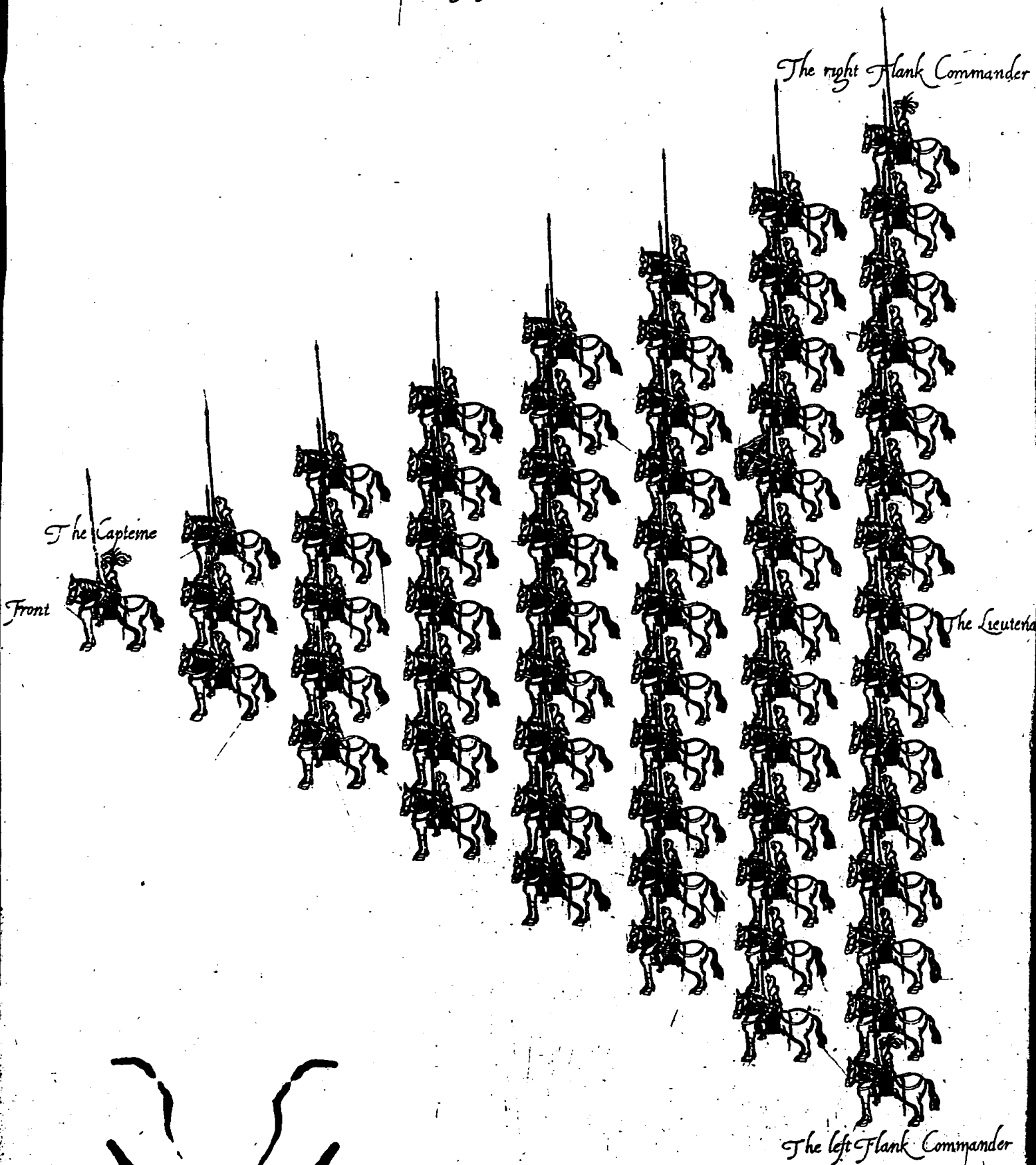


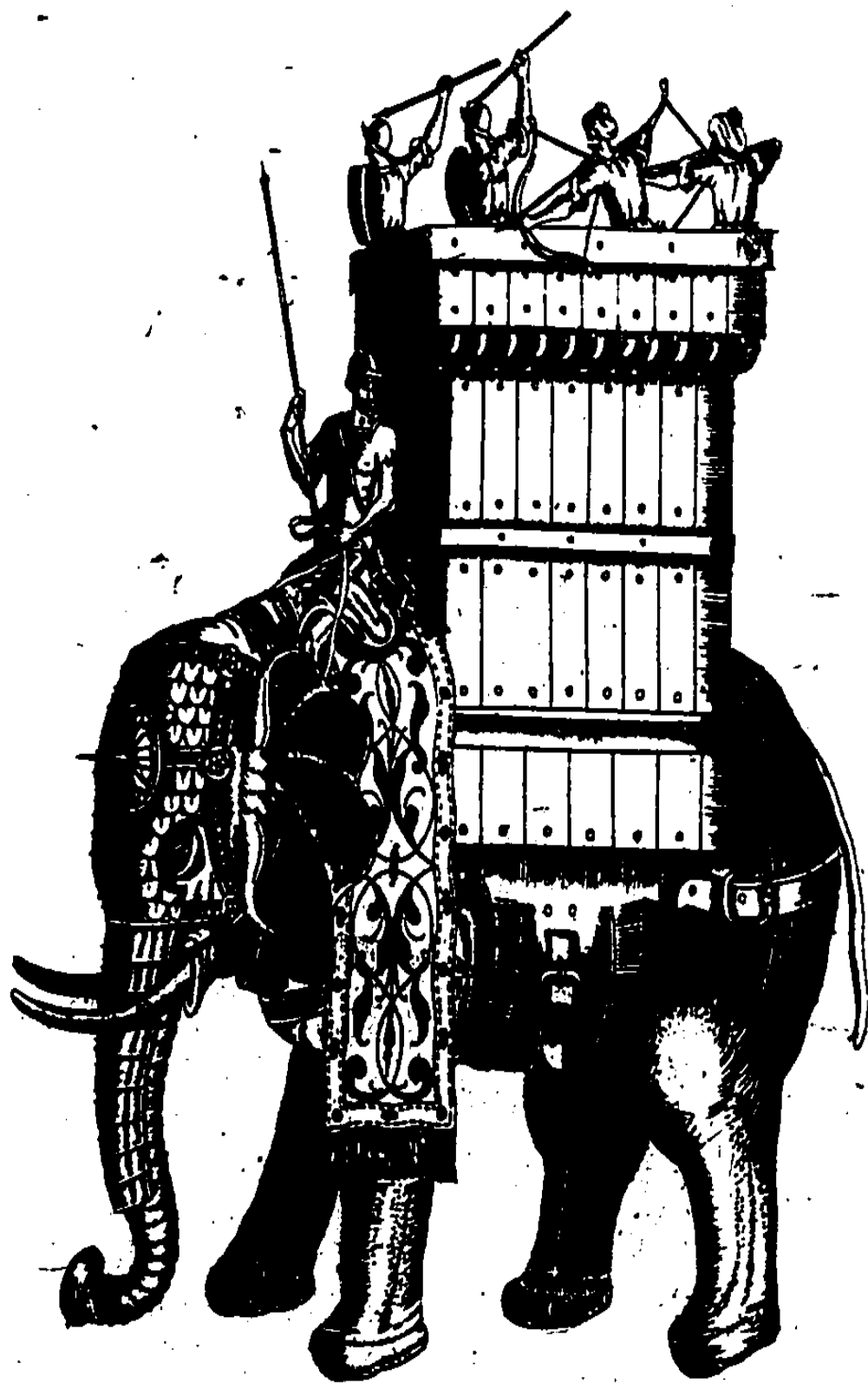
Cap. 19.

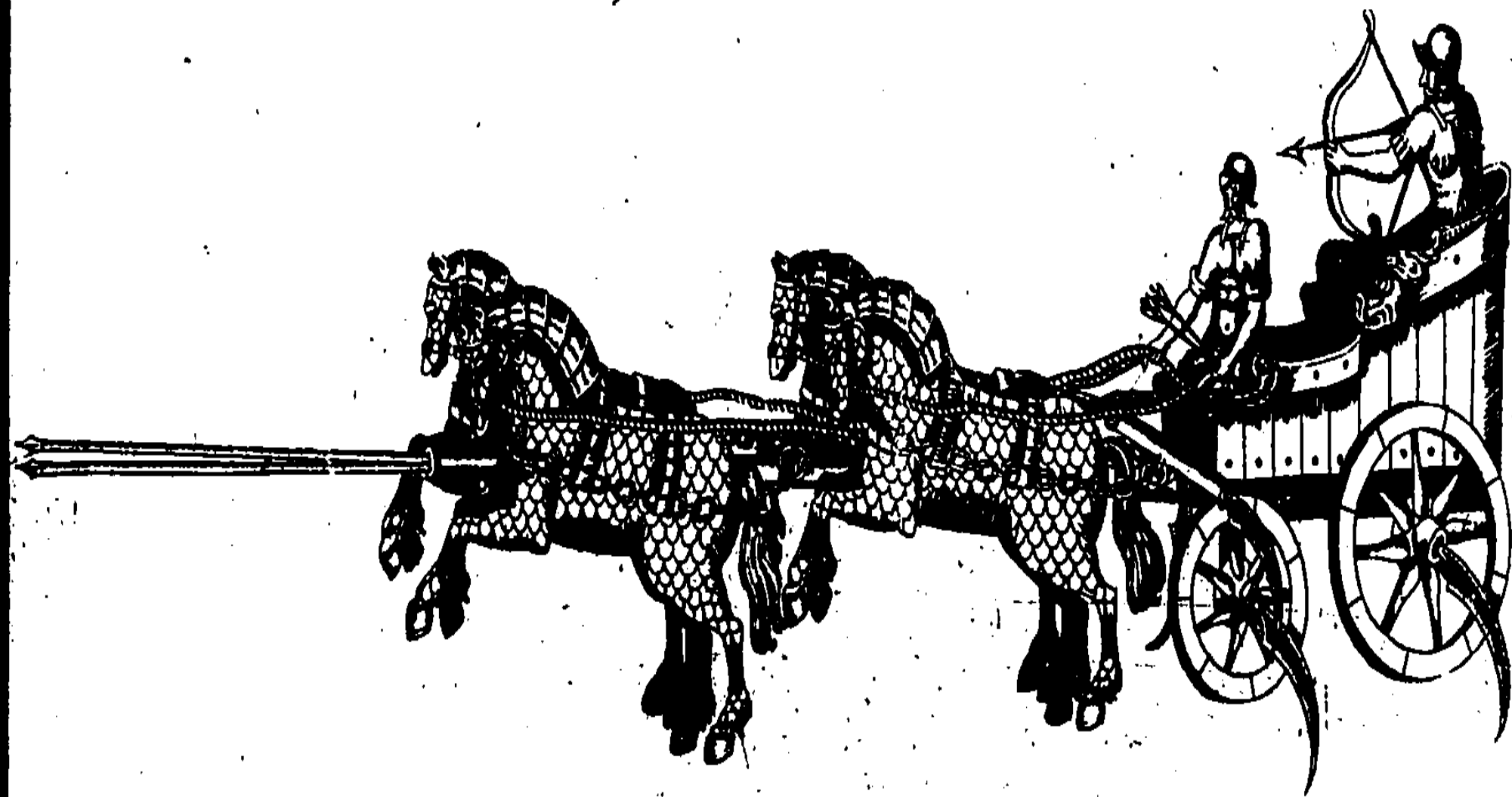
A Rhomb neither Filing nor Ranking



The ordinary horse trolope
consisting of 64





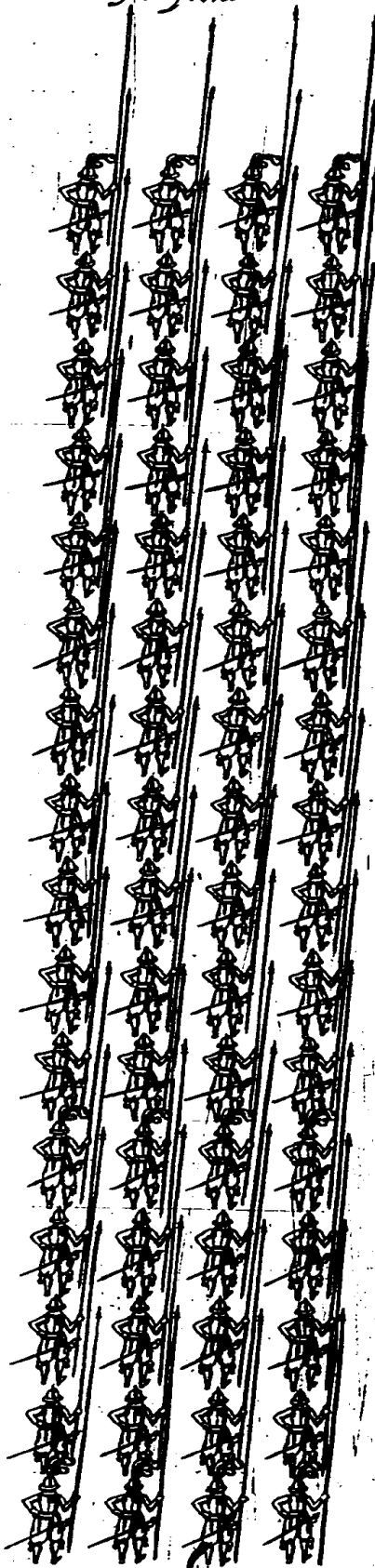


Marche or Faces turned
to the right hand

Steps or one Turning of
Faces to the
right hand

The first standing

The Front



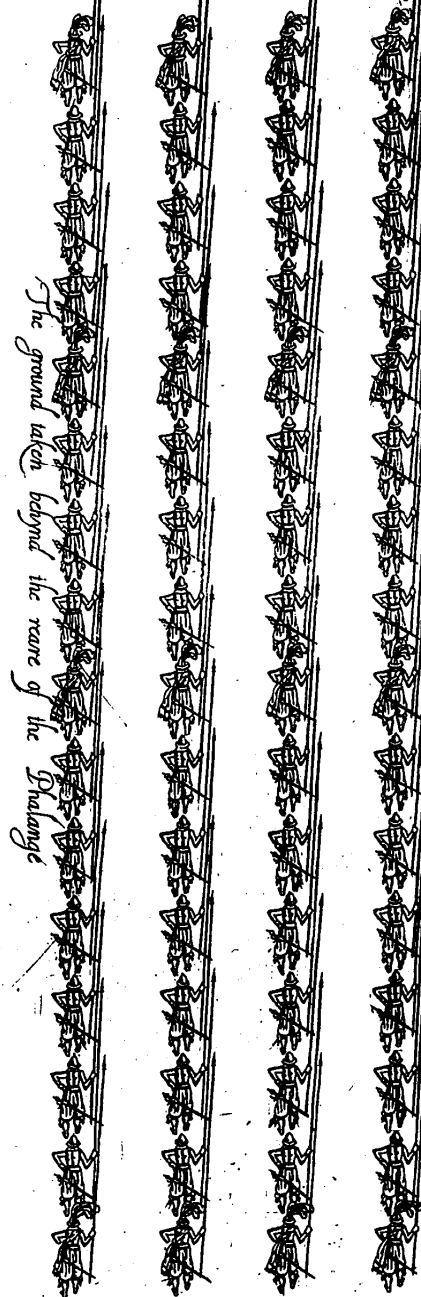
The Front



The Front

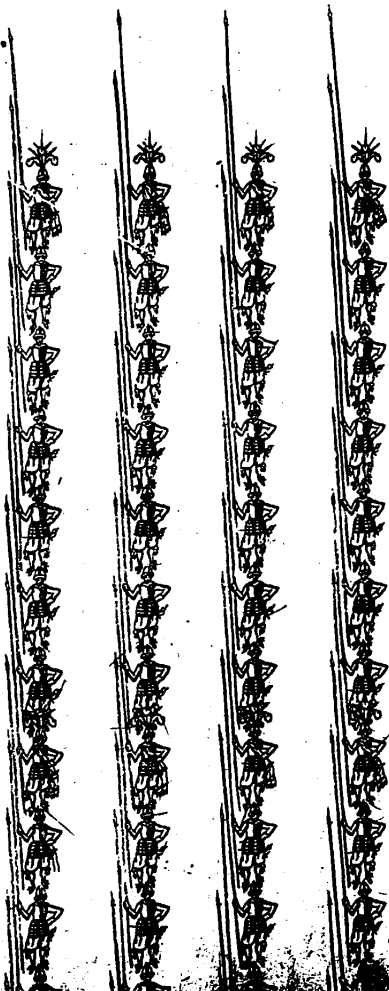
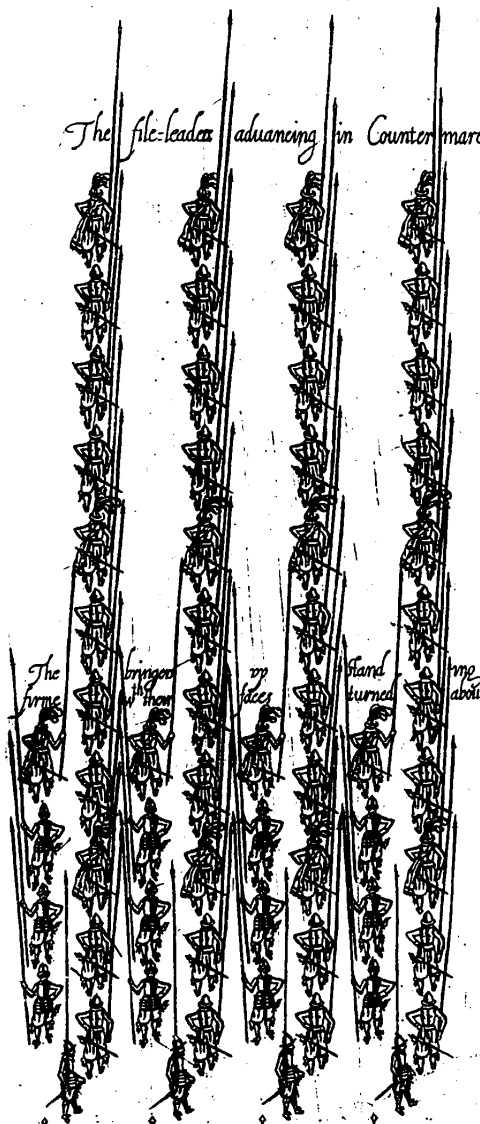
The Lacedaemonian Countermarch

The front after Countermarch



The Countermarch in action

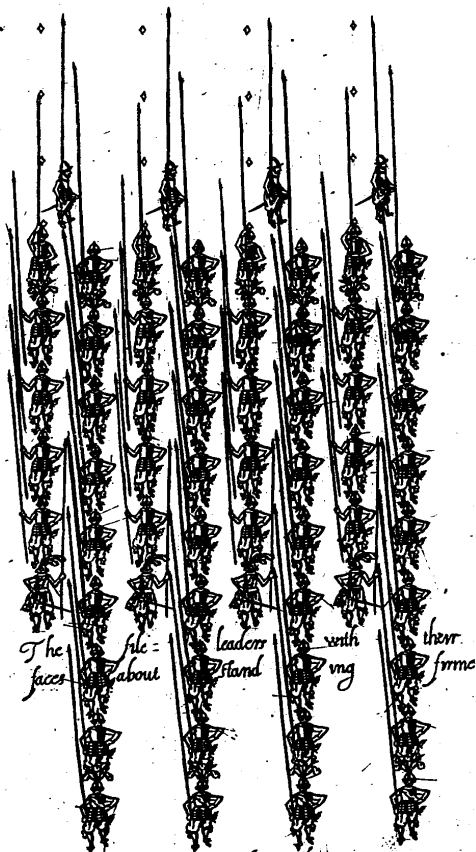
The file-leader advancing in Countermarch



The Macedonian Countermarch
by file

The rate

The Countermarch in action



The bringers up dismarching

The front after Countermarch

The ground taken before front of the Phalangia



The front of the first standing

The Gorean Countermarche

The front after Countermarche

The Countermarche in action

The Bring: out up mov: ing

The file: loc: dors: limarching

The same ground kept after the Countermarche made

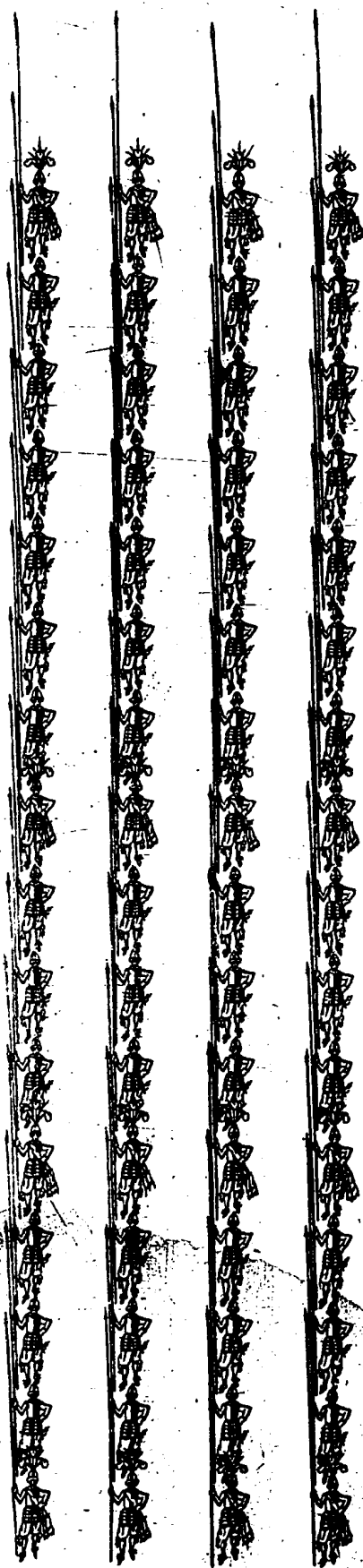
The Front in the first standing



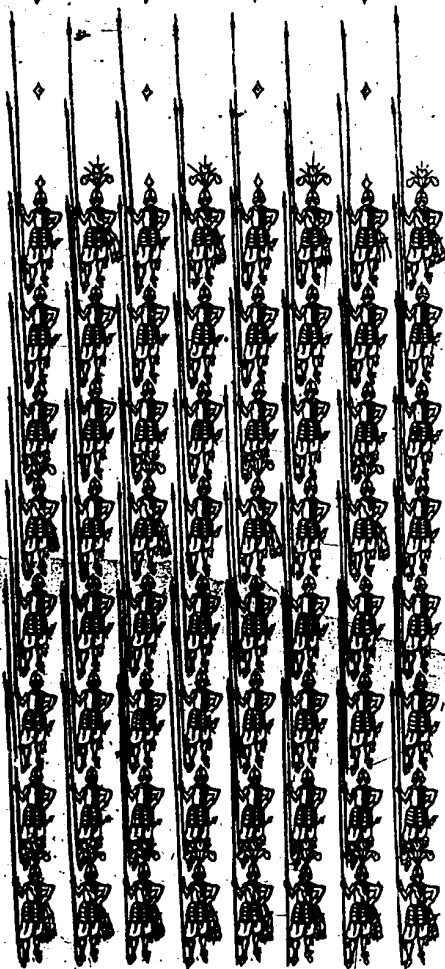
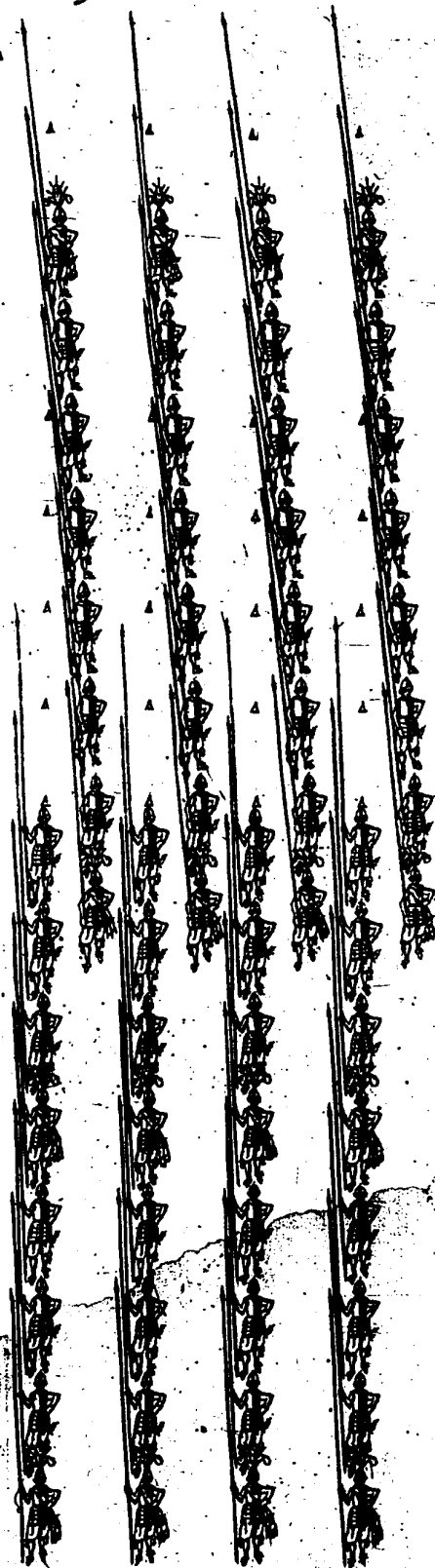
Cap 29

Doubling of Ranks

Doubling of ranks in action



The front before Doubling of ranks



The front after Doubling of Ranks

Cap 29
 Doubling y^e Depth
 or files

The even files inserted into the odd

The depth doubled by Countermarch

The first posture

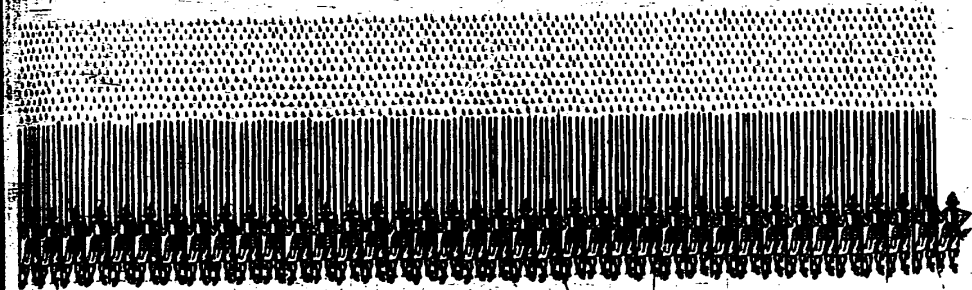


The first posture

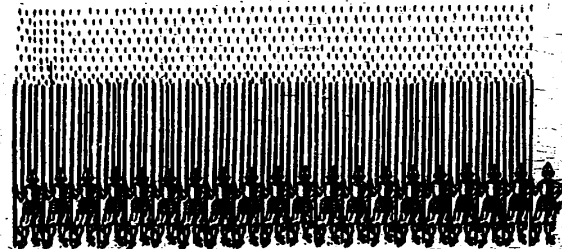


*Plagiophalanx or the Brode-fronted
Phalange*

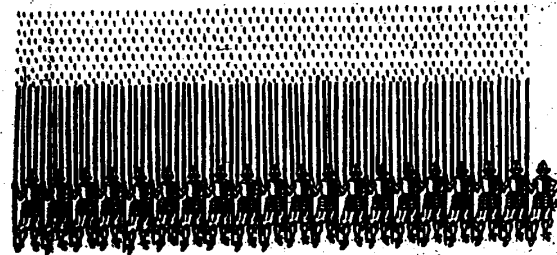
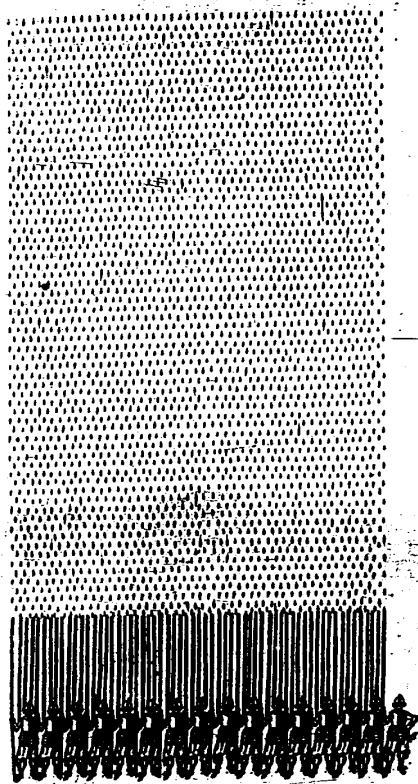
Cap 30



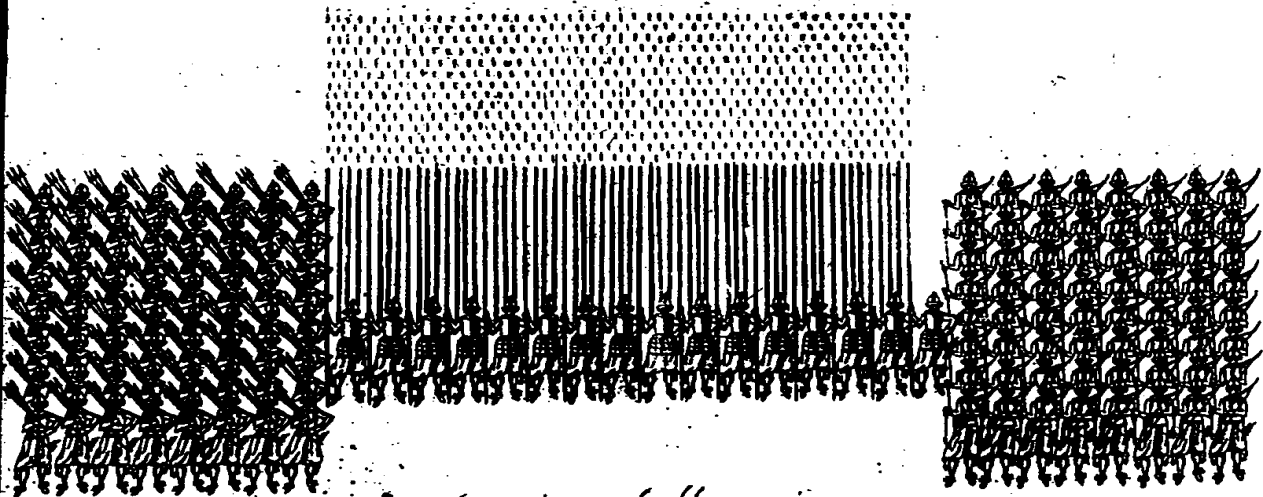
*Loxe-Phalanx or the uneven fronted
Phalange*



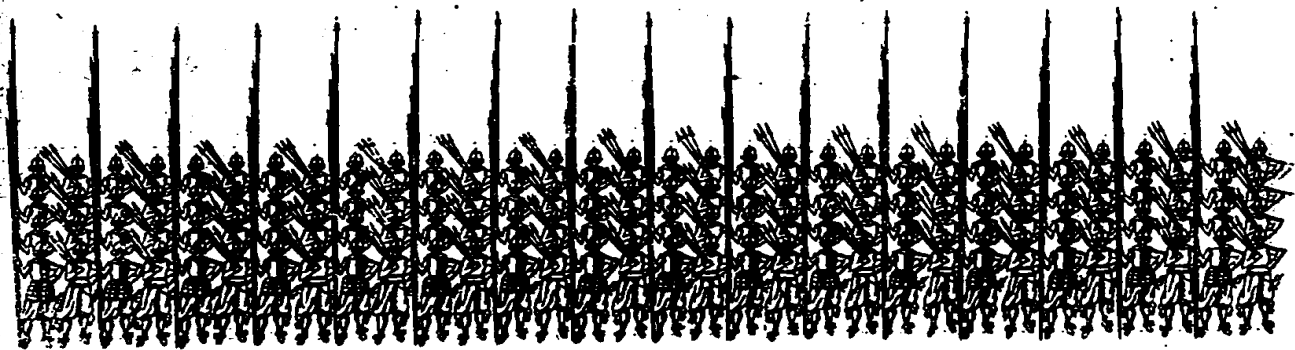
Orthiophalanx or the Herse



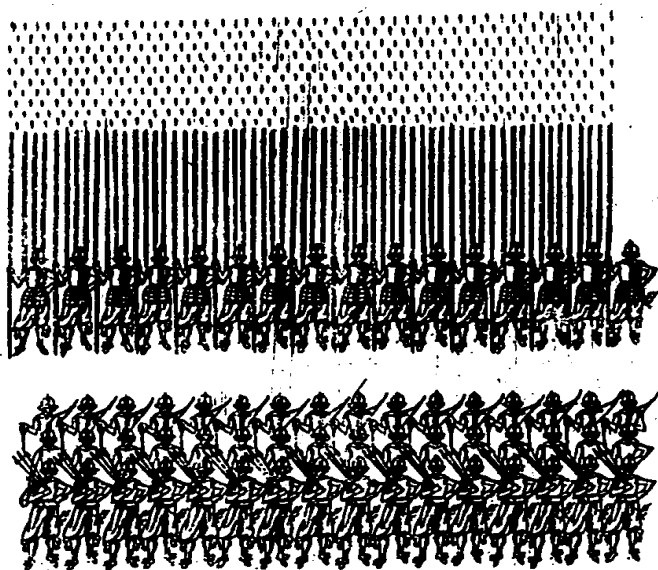
The Front



Hypotaxis, or double-winging



Entaxis, or insertion



Protaxis, or forefronting

Cap. 32.
The manner of wheeling

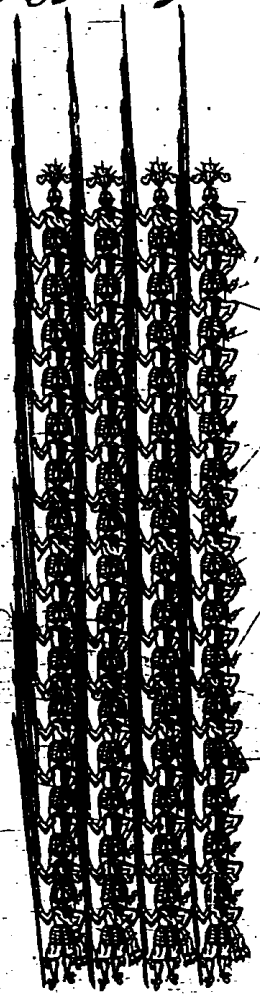
The first posture

Closing of files



The Front

Closing of ranks forward



Cap. 32.

The action of wheeling



Cap २२ Of Cloinges



The front after closing



Closing to y^e right
flank in action



The front before closing

Closing to the middle



Closing to y^e
left flank

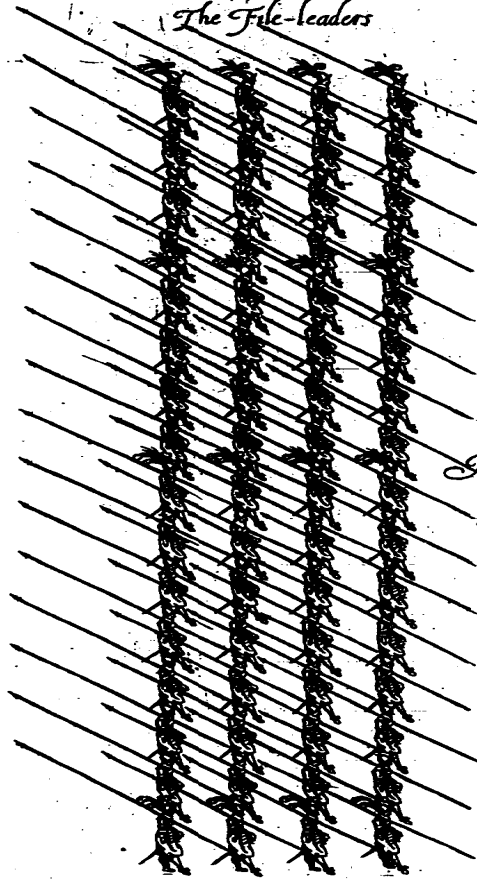


Closing to y^e
right flank

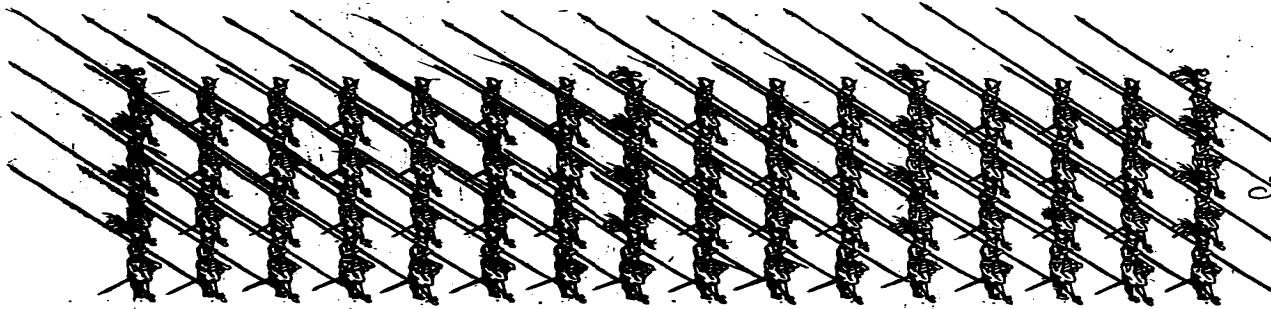


The front of a
battalion closing

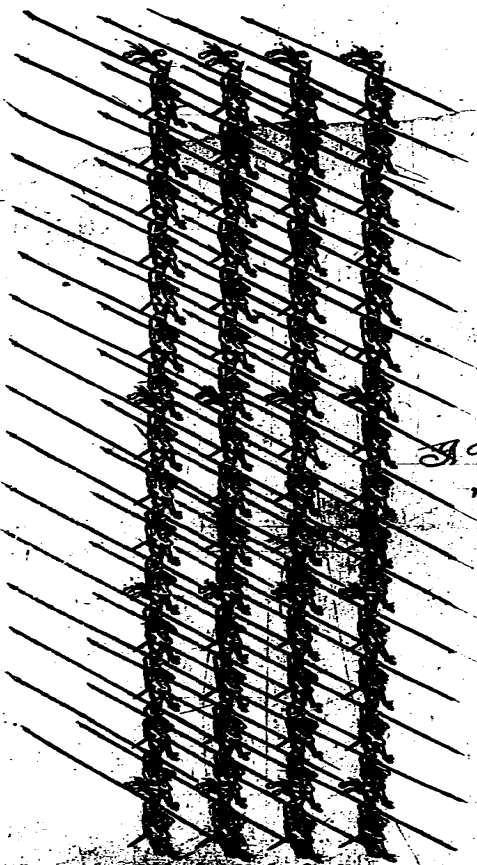
The File-leaders



A Deduction to the
left hand



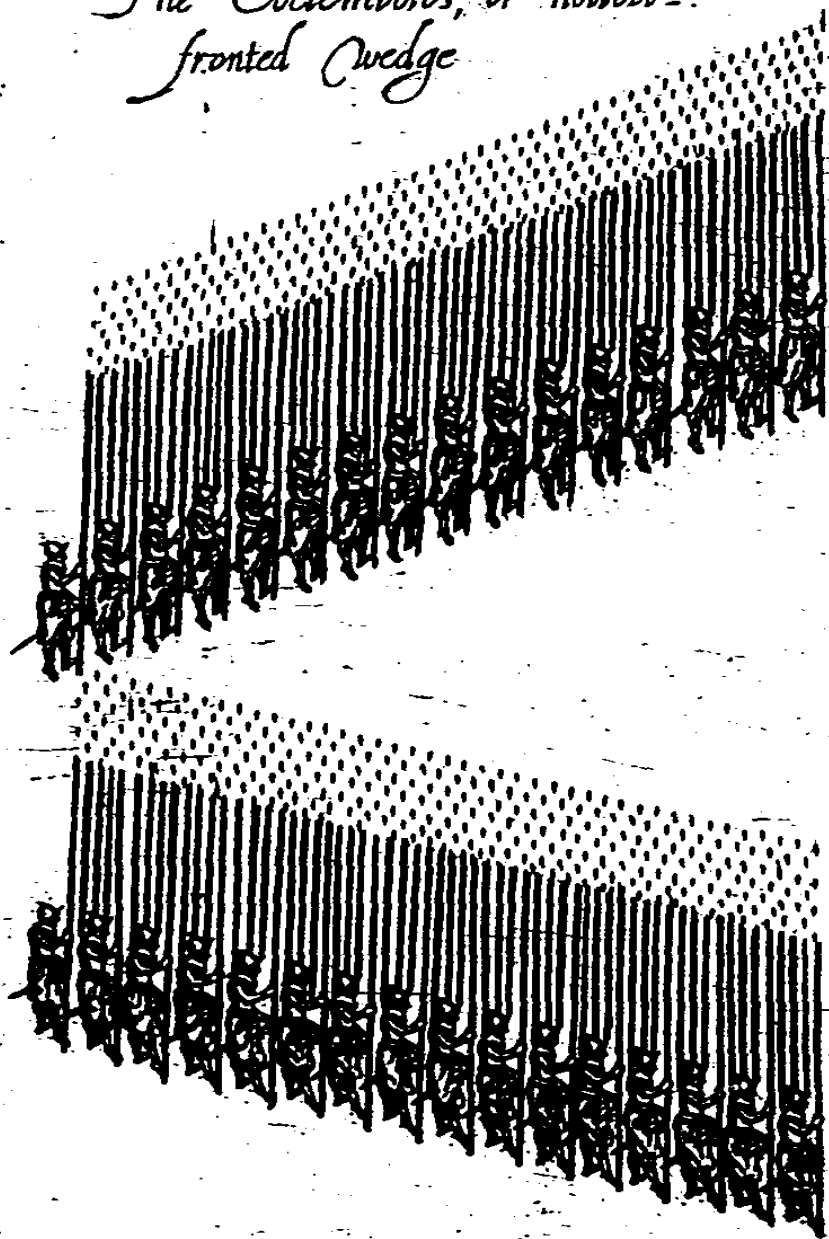
A right induction
The Front



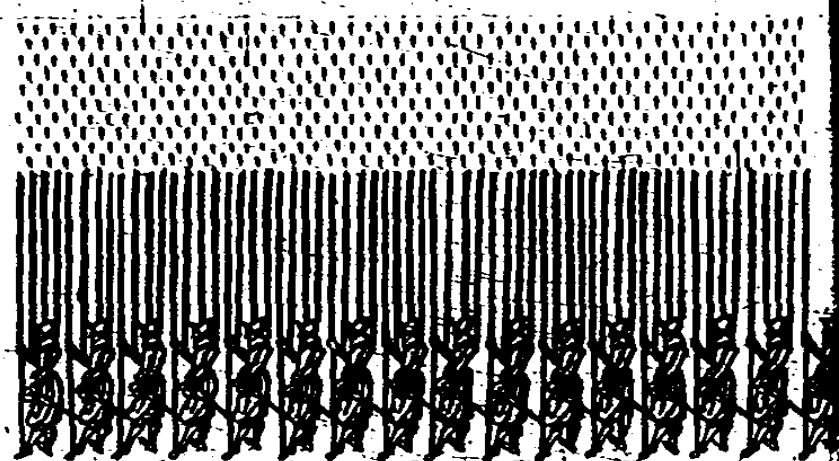
A Deduction to the
right hand

Cap. 36.

The Coelembolos, or hollow-
fronted Wedge



The right Induction

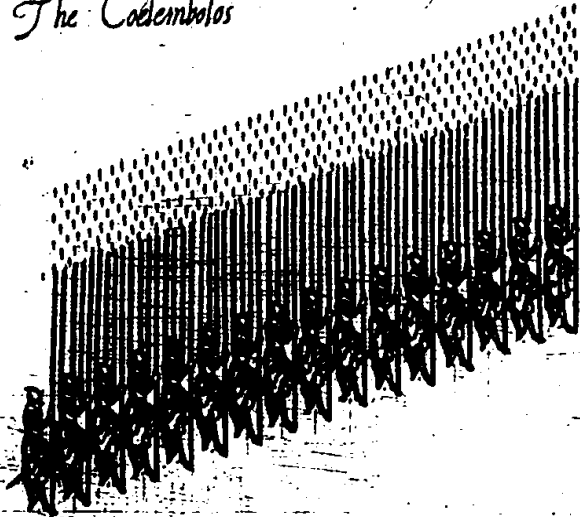


The front

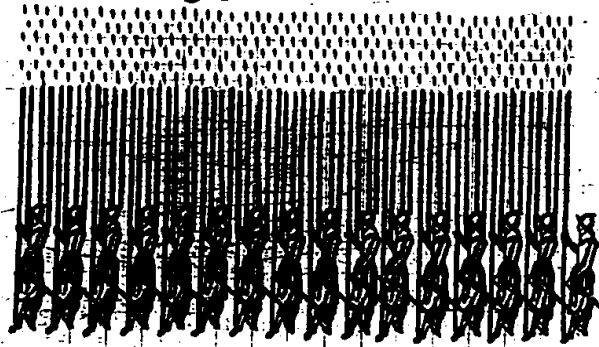
Cap. 36.

The Coelembolos

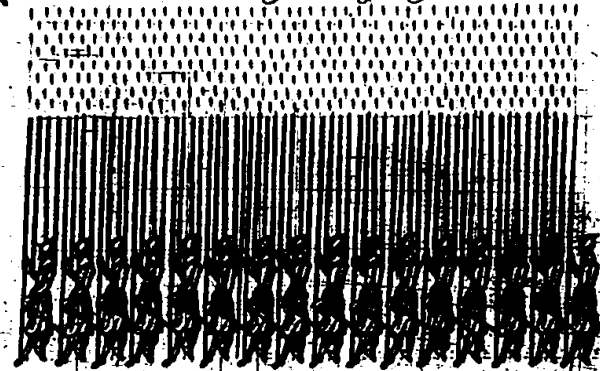
The left wing



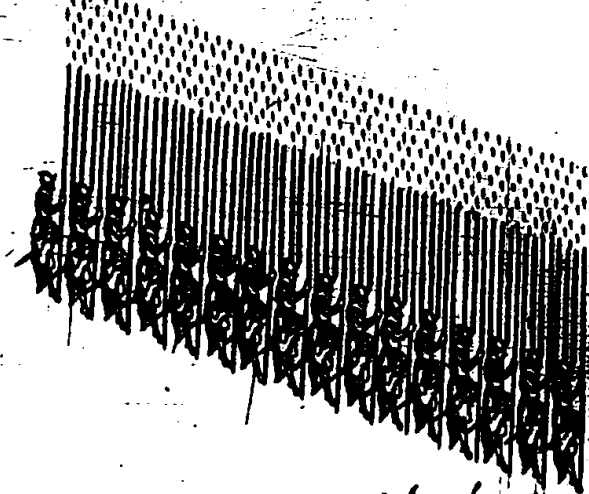
The Phalange set against y^e left wing
of y^e Coelembolos



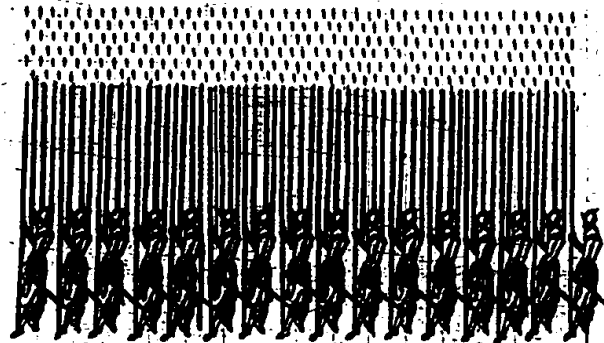
The forbearing Phylange



The front

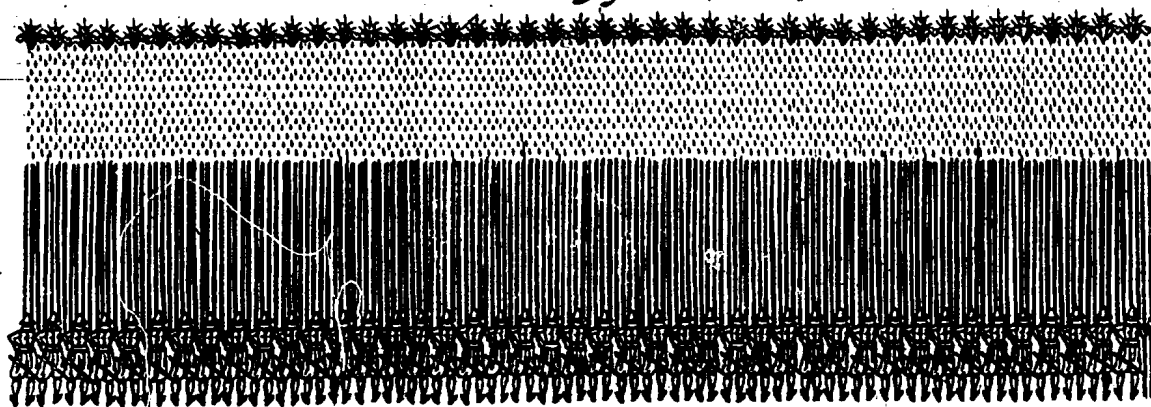


The right wing

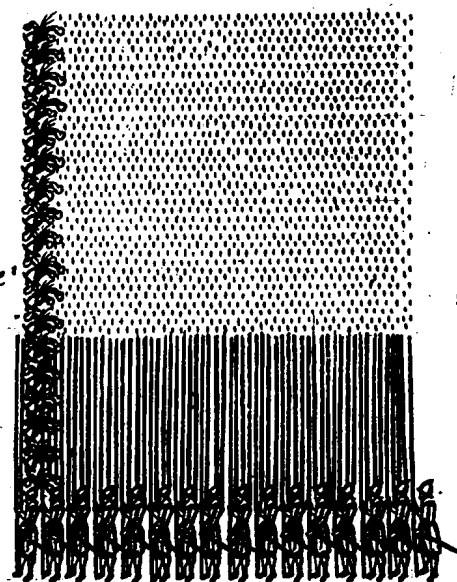


The Phalange set against y^e right wing
of y^e Coelembolos

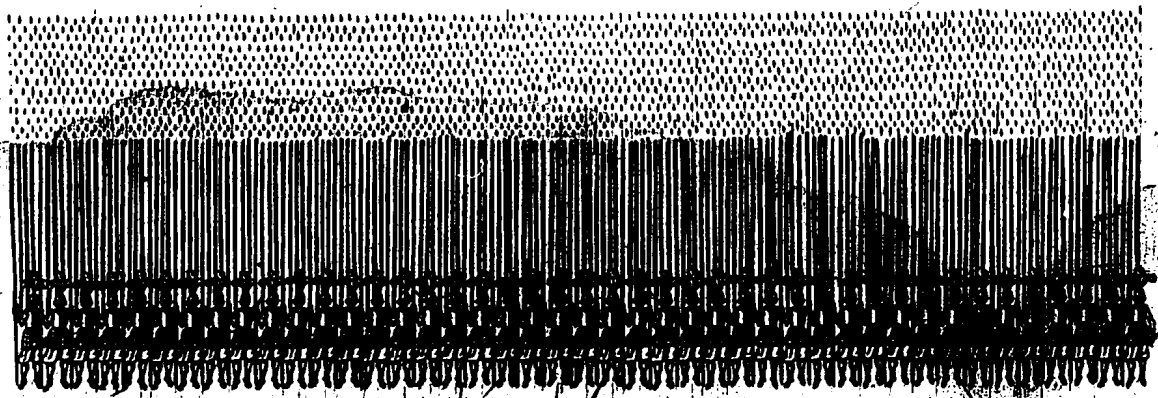
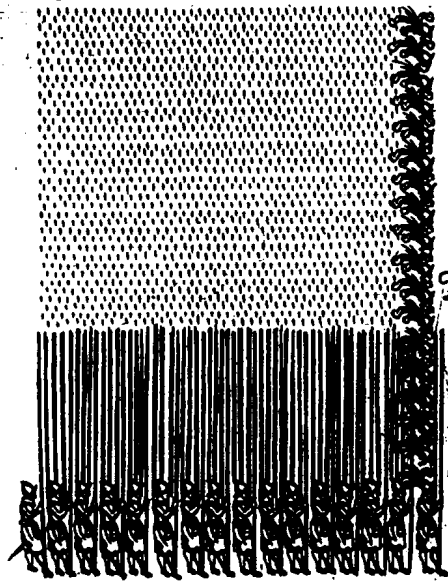
Cap. 37.
*A four fronted Phalange against
 all attempts of the Enemy
 The Front of y^e reare*



*The Front of y^e
 right flank*

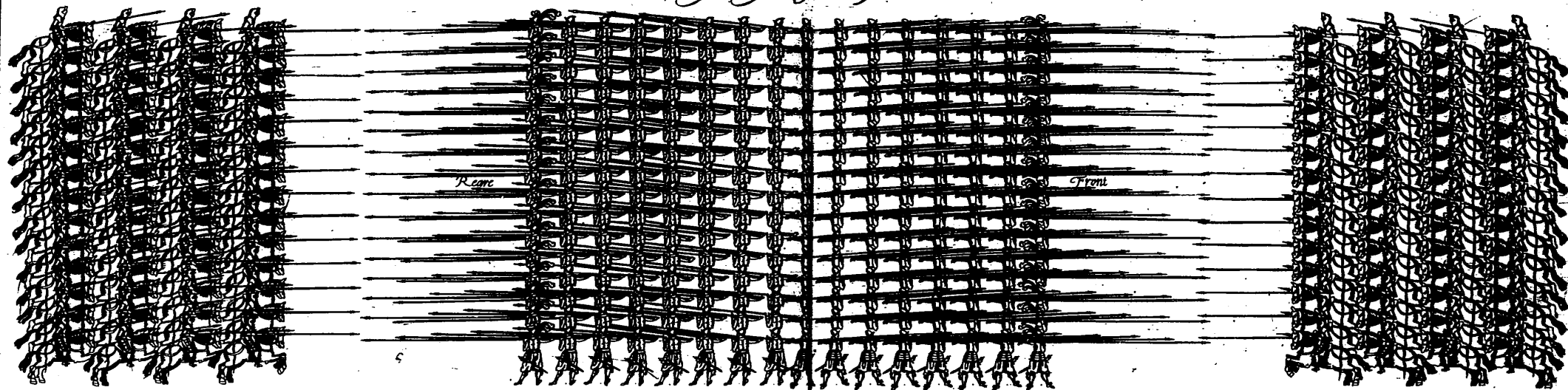


*The Front of y^e
 left flank*

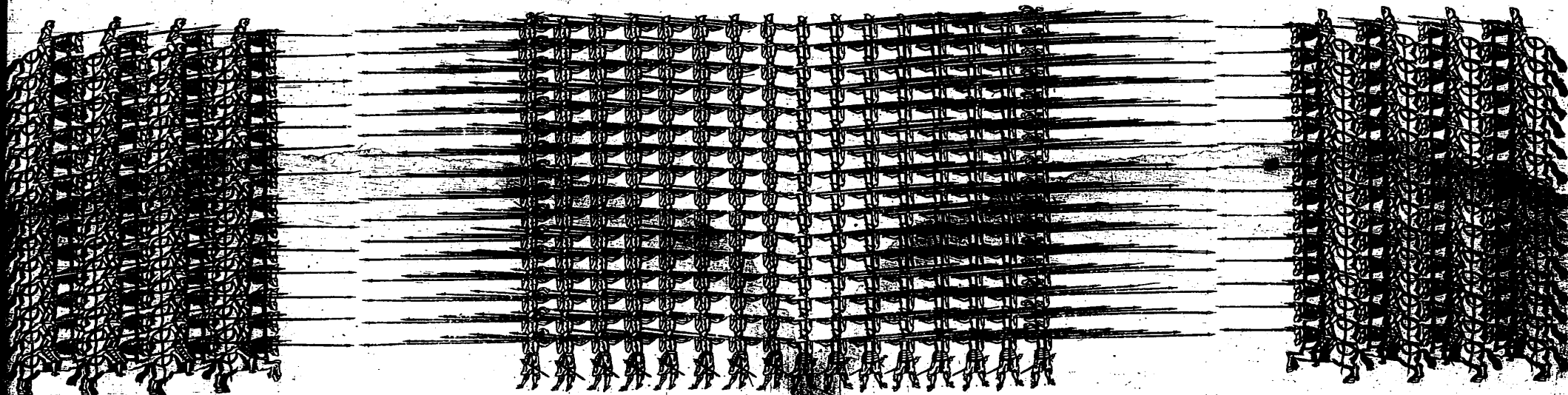


The Front of the March

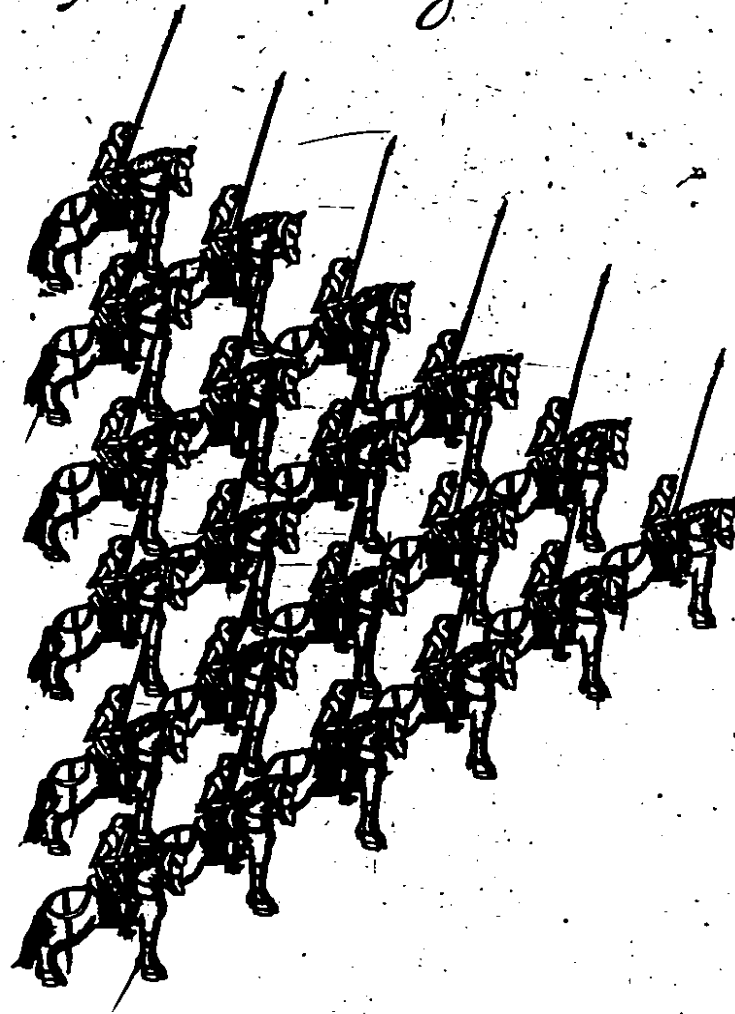
Cap. 38
The Phalange Amphistomus



Cap. 39
The Phalange Anistomus
Front



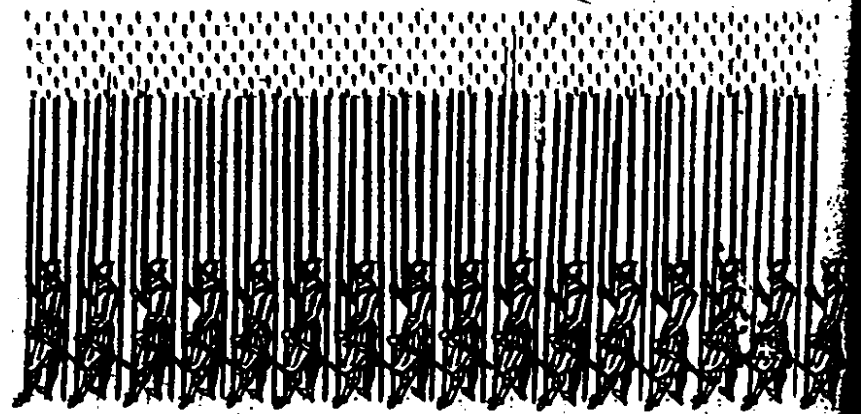
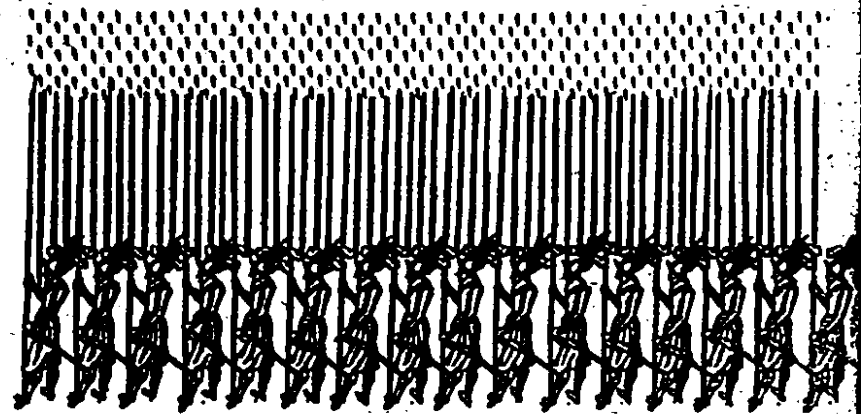
The Horseman's Wedge



Front

Cap. 40.

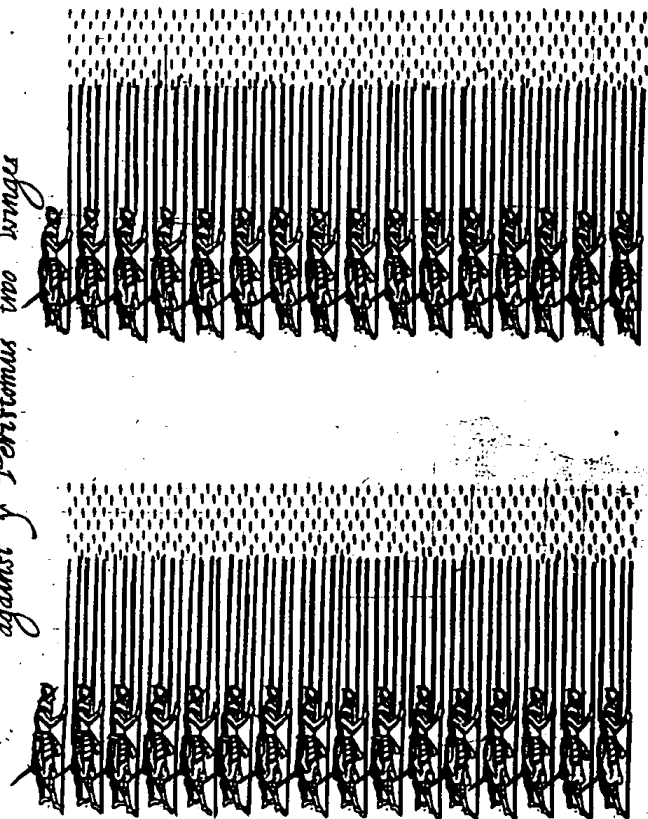
A Diphlange Antistomus



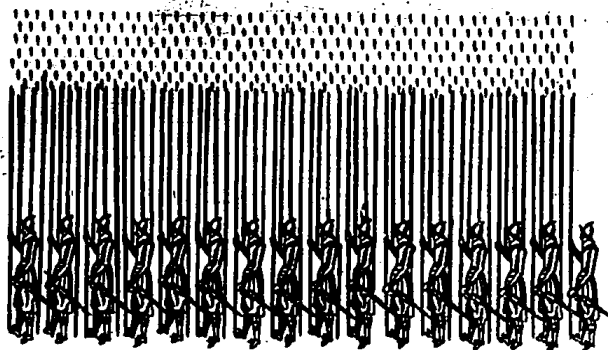
Cap. 41.

The Diphalaris Peristomus

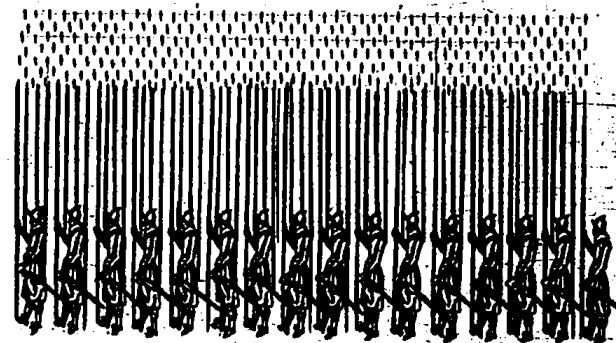
The square devised in two and seth
against y^e Peristomus two wings



The inner front of y^e
Peristomus



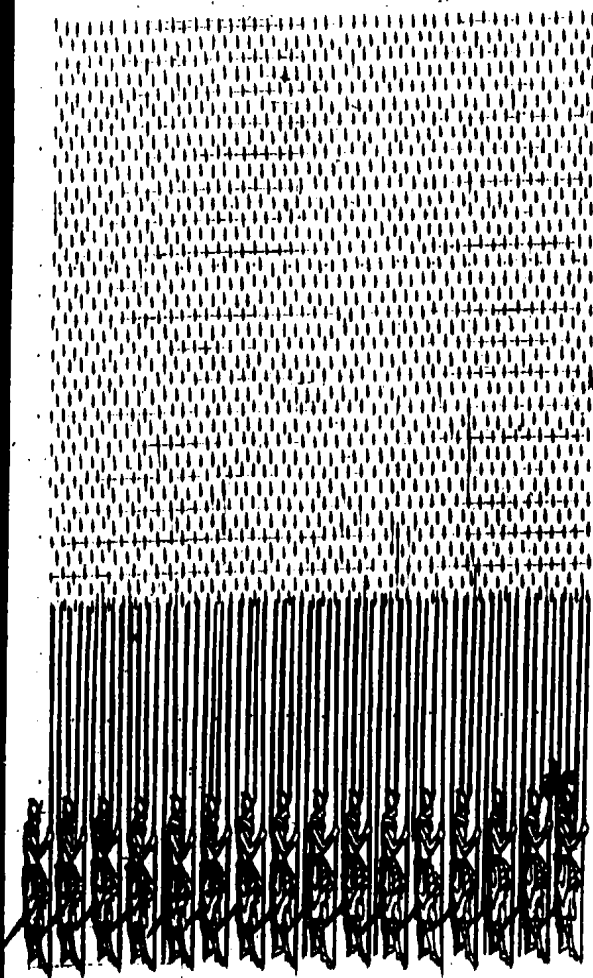
The left wing of y^e Peristomus



The right wing of y^e Peristomus

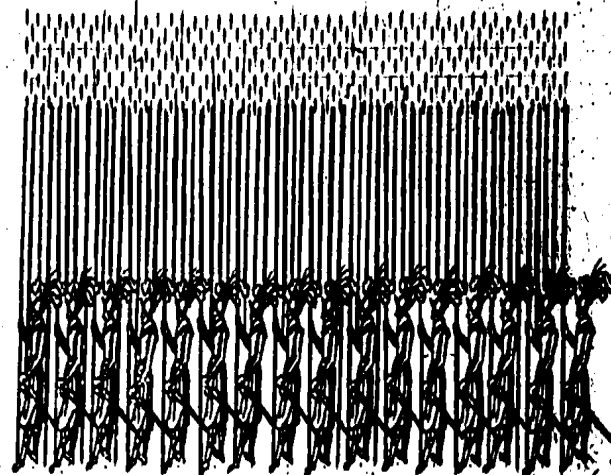
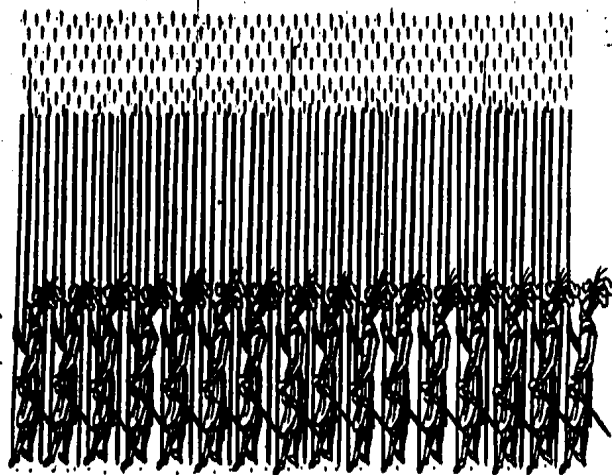
The Battaille called Pinthium

Cap. 42.



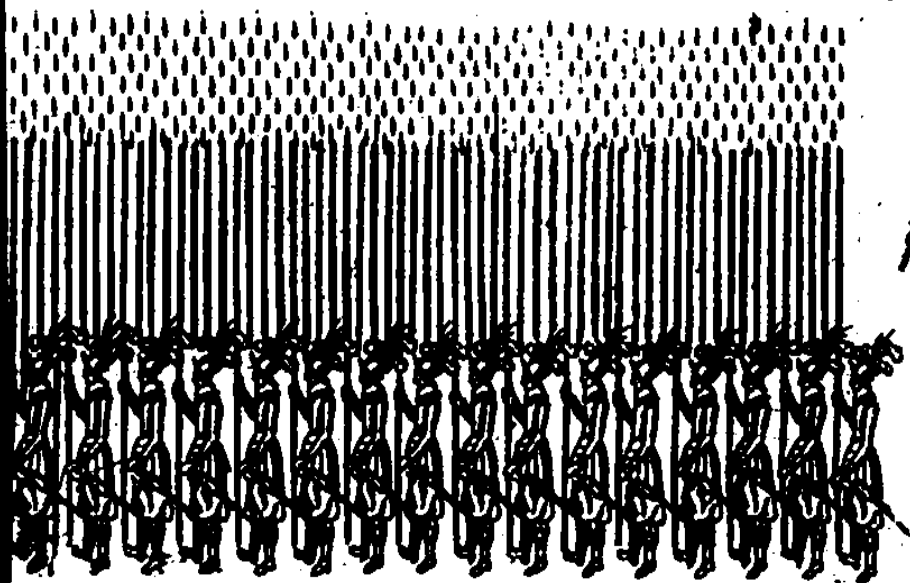
The front

The Diphallange Homorotomus

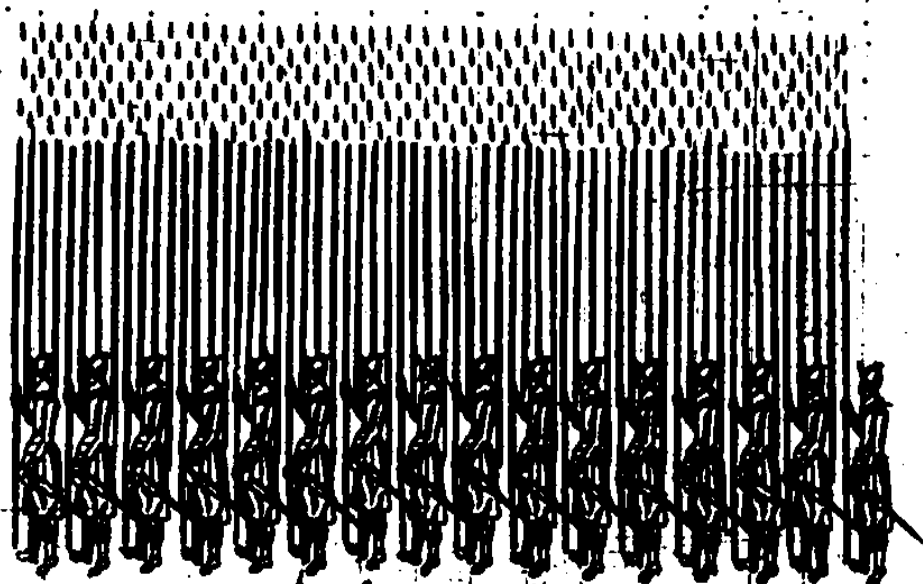


Cape 43.

The Diphalange Heterostomus



The File-leaders

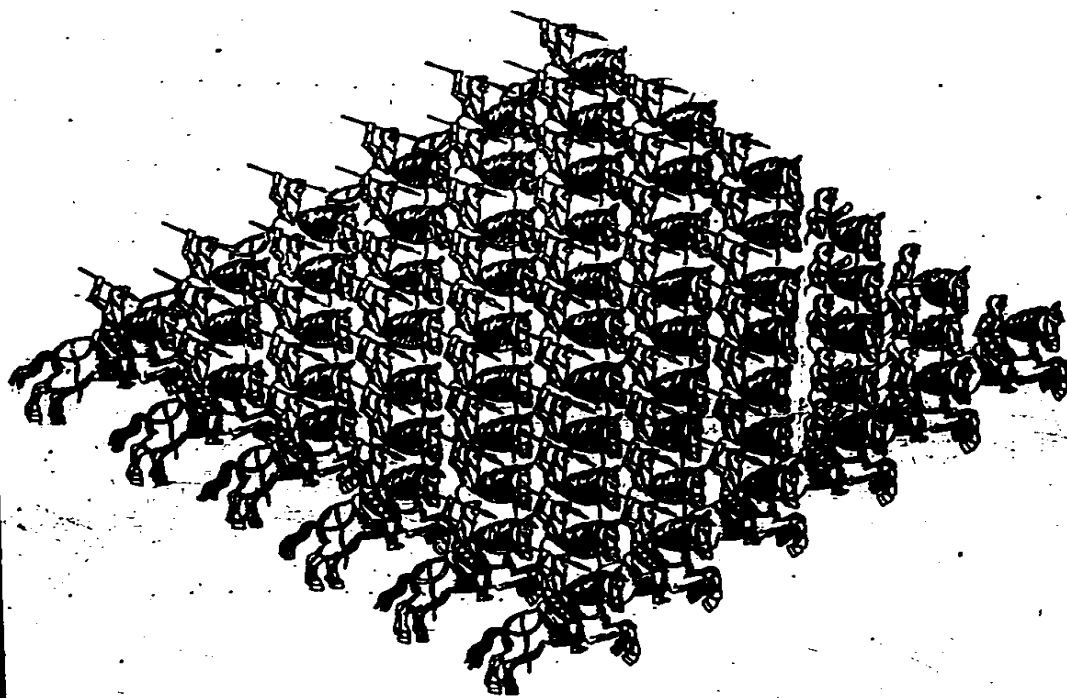


The bringers-up

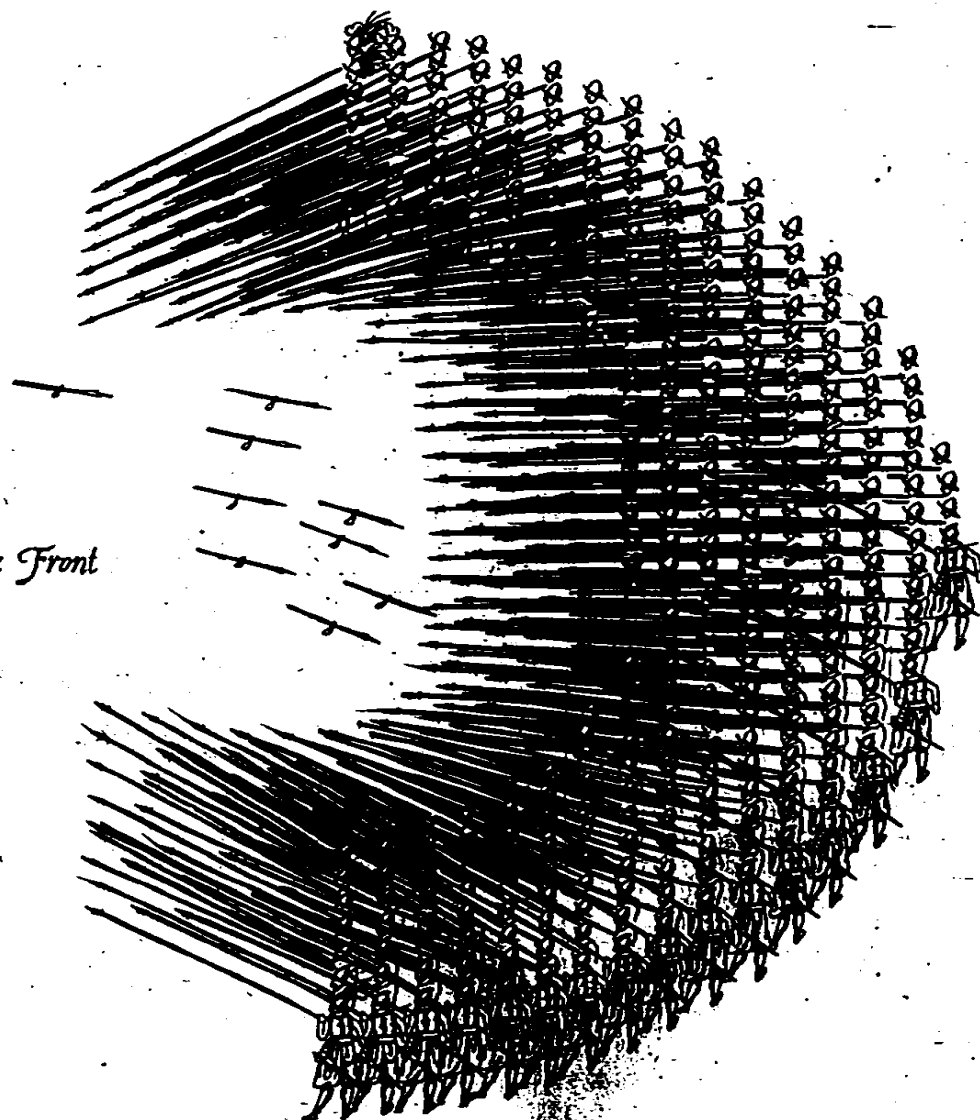
Cap. 44

The half Mame or Menoides of scote

The Rhombe of Horse



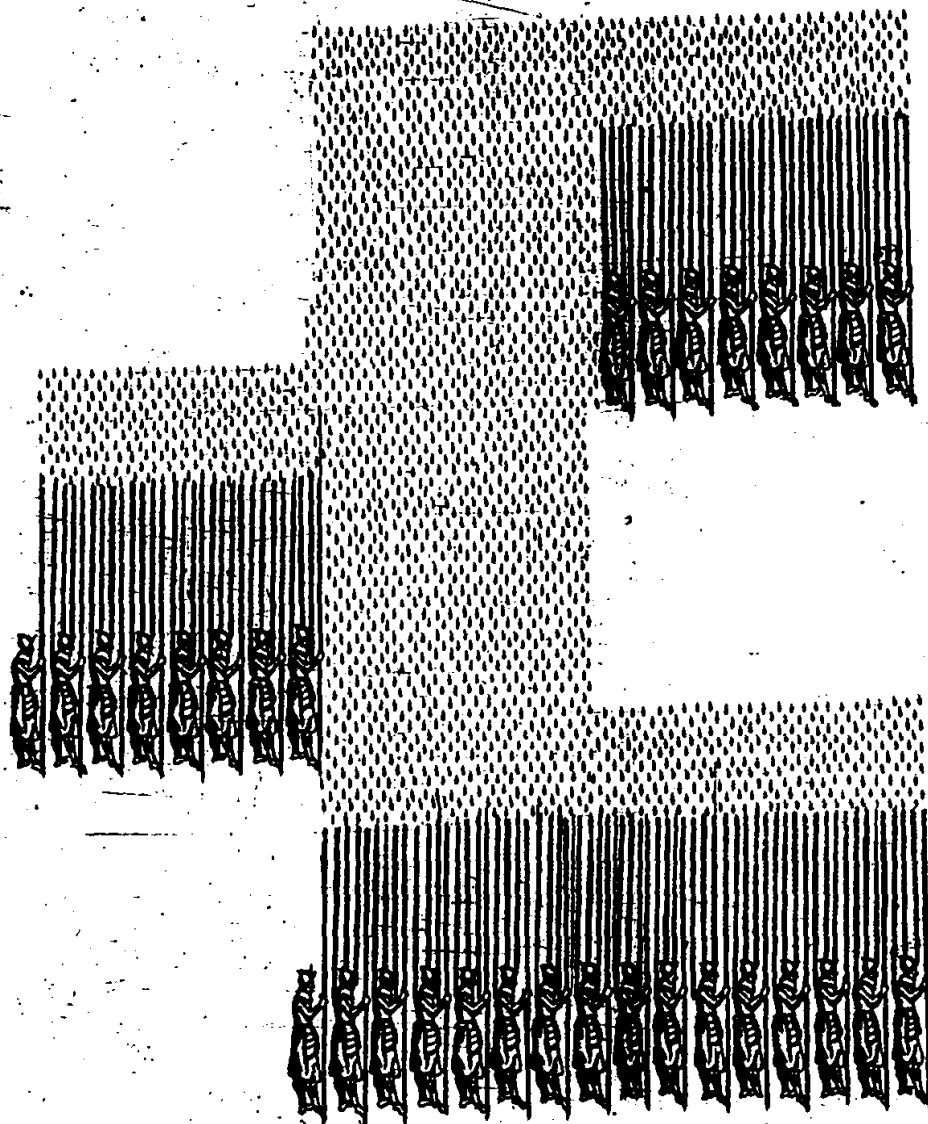
The Front



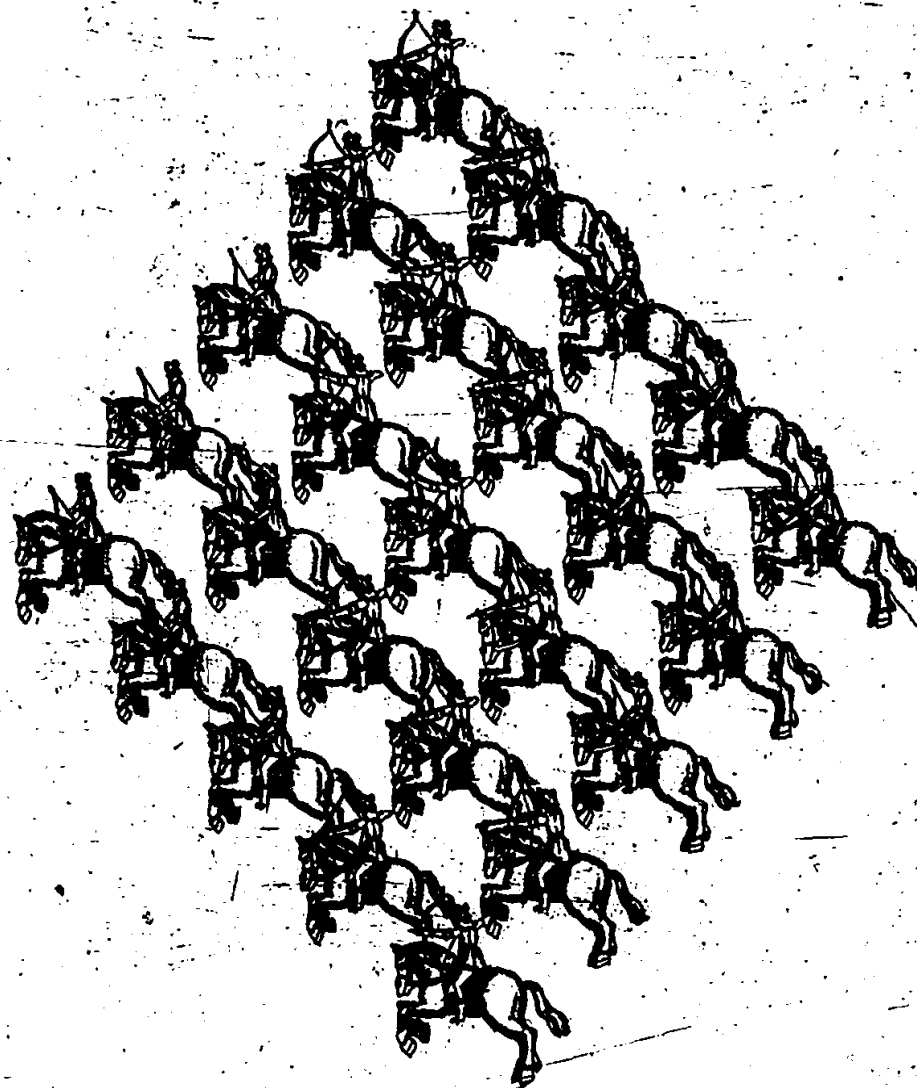
Epicampros Emprosthia

Cap. 46.

The Rhombe



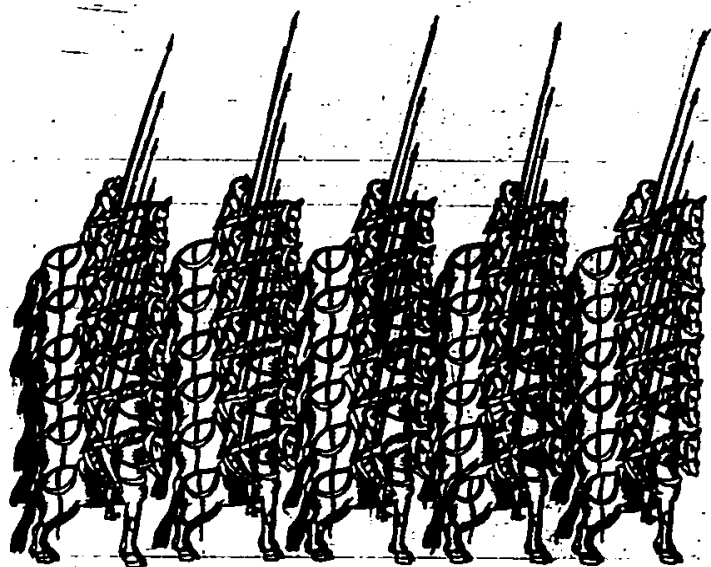
The front



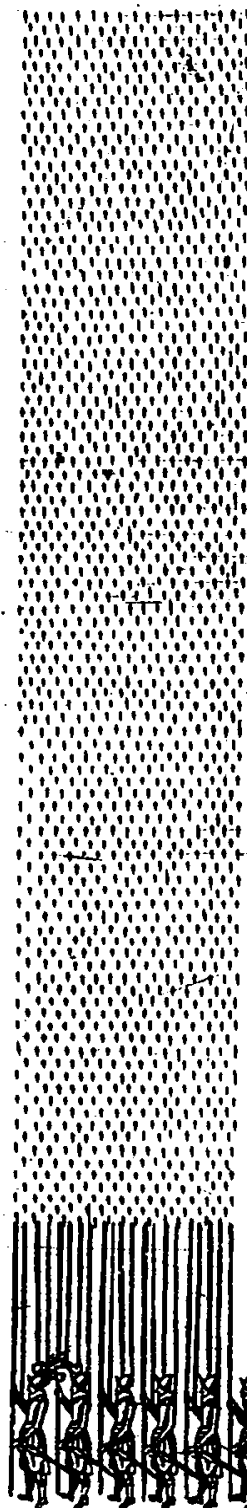
Cap: 45

Plagiophalanx, or y^e broad fronted
battaille of foote

Heteromekes or y^e Hense of Horse

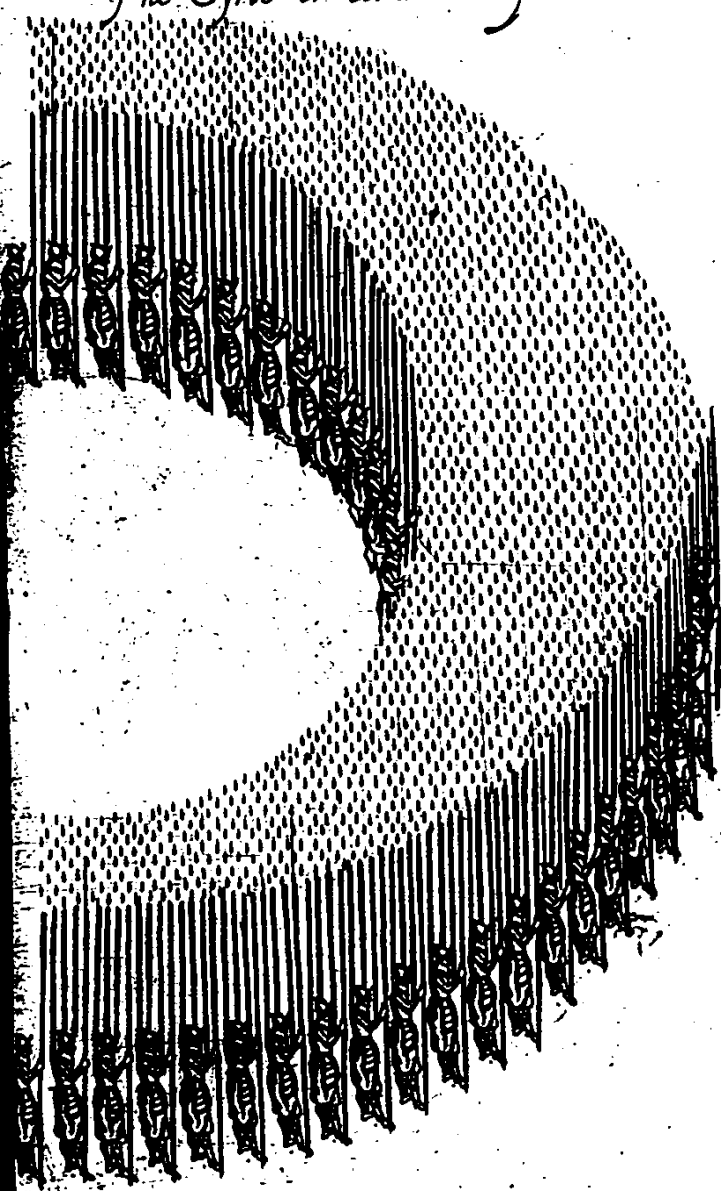


The front



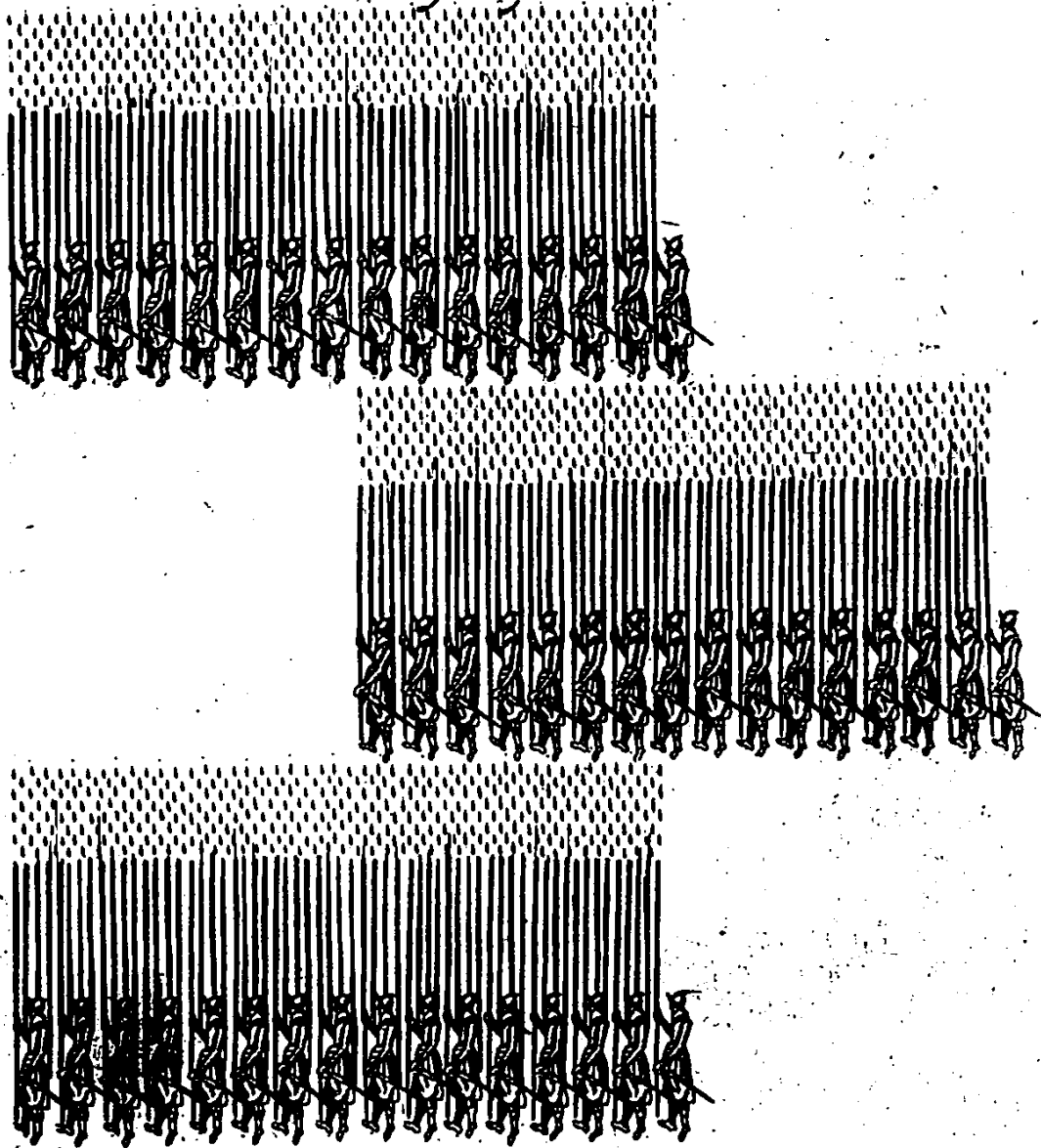
The Gyrtte or convex half Name

Cap. 47.



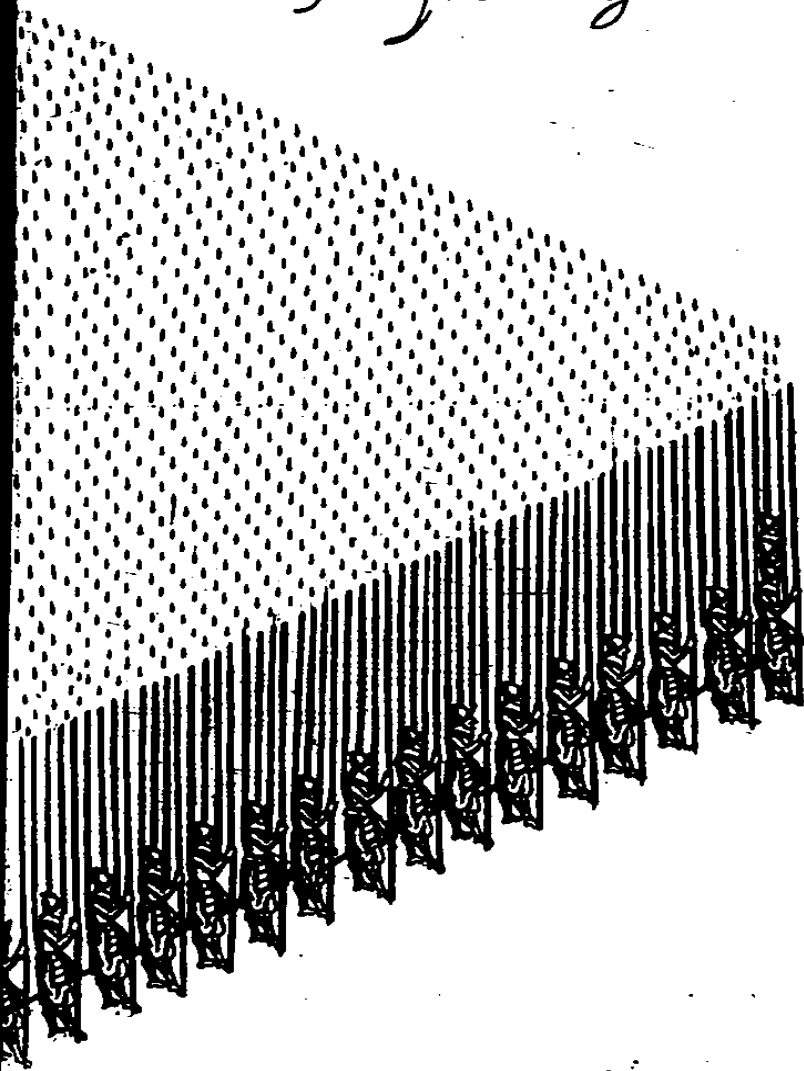
The front

The Epucampios



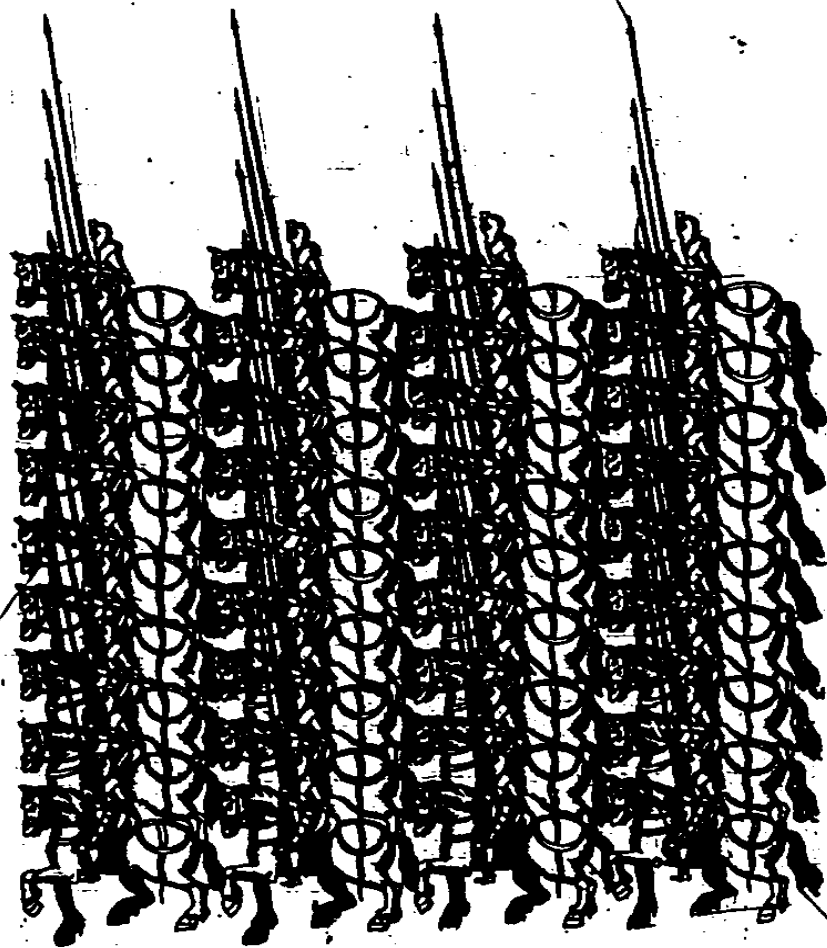
Cap. 48.

The foot wedge



The front

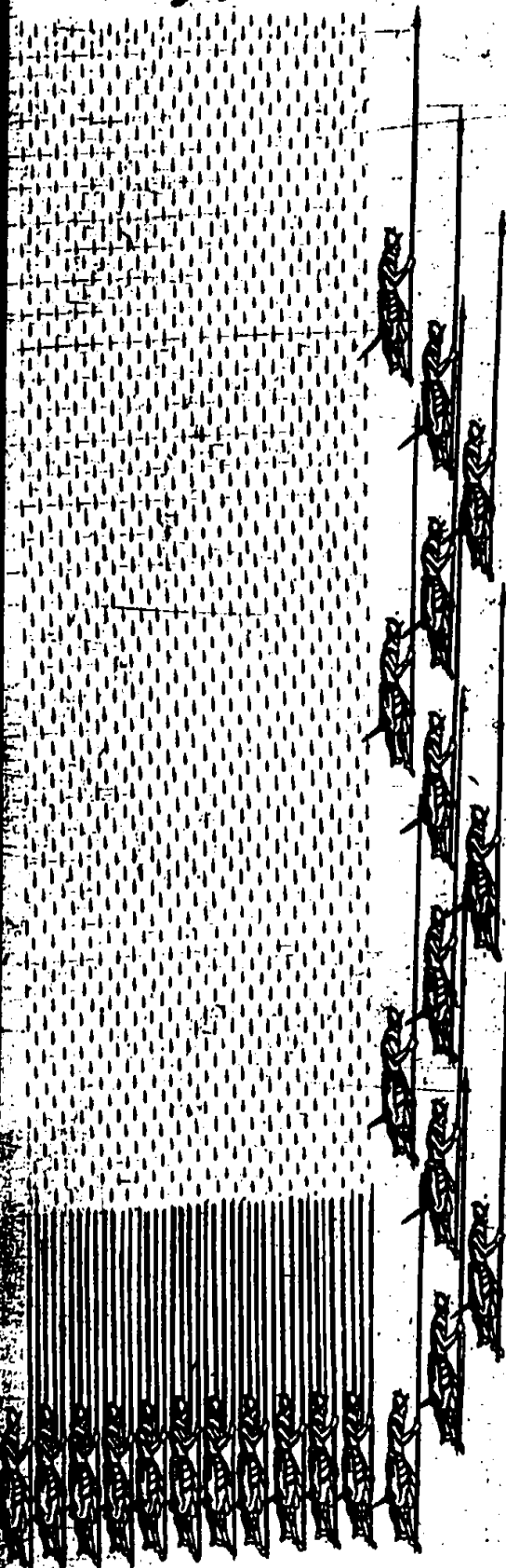
The Horribattle square in figure,
not in horse



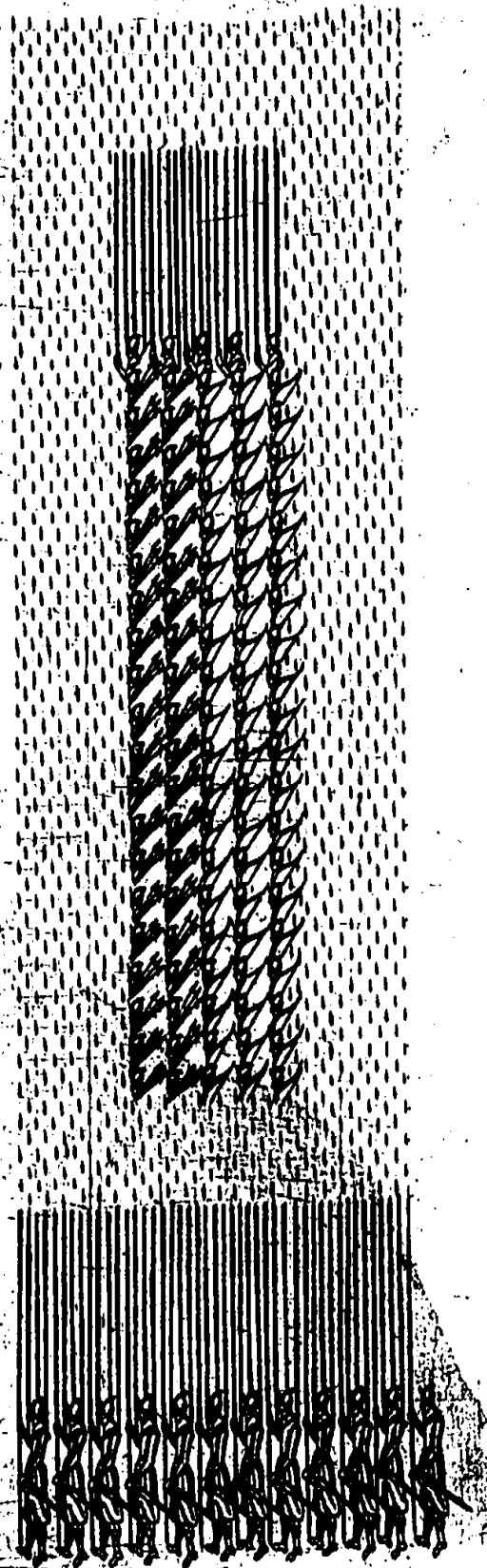
The Pelegmene

Cap. 49

The Plesium



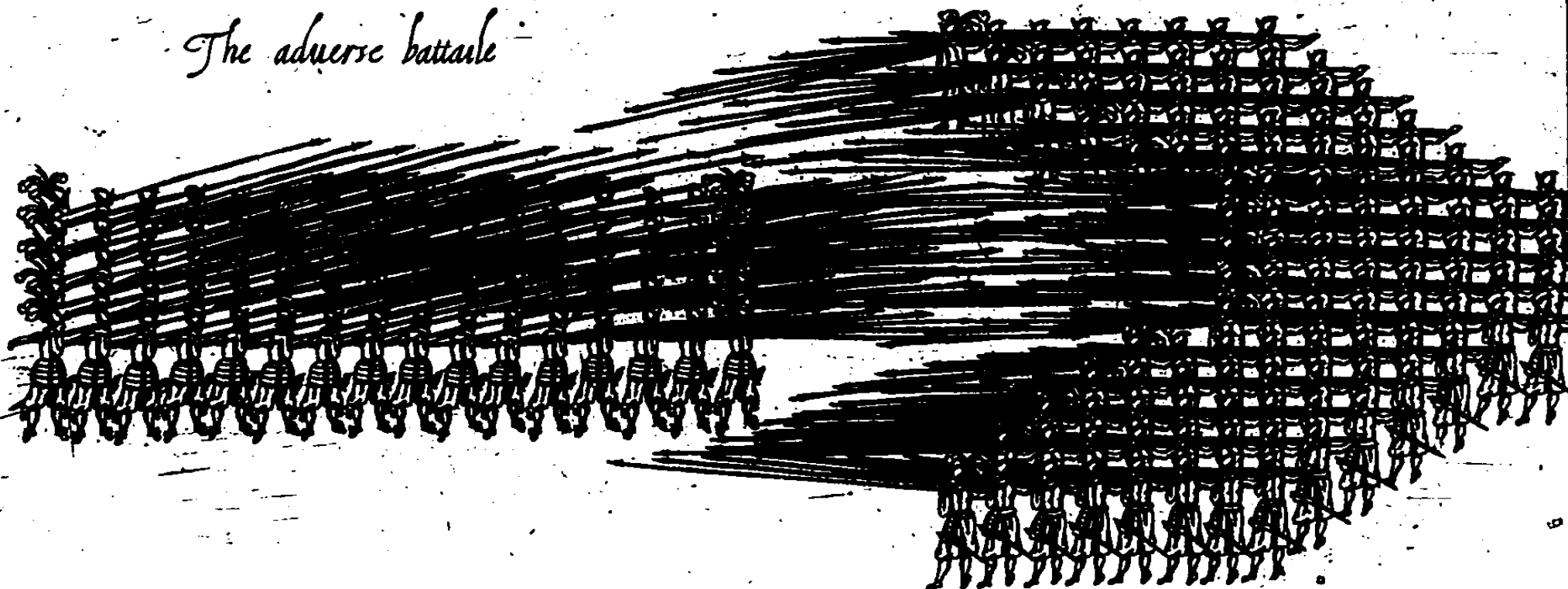
The front



Cap. 50.

The overfronting bataille

The adverse bataille



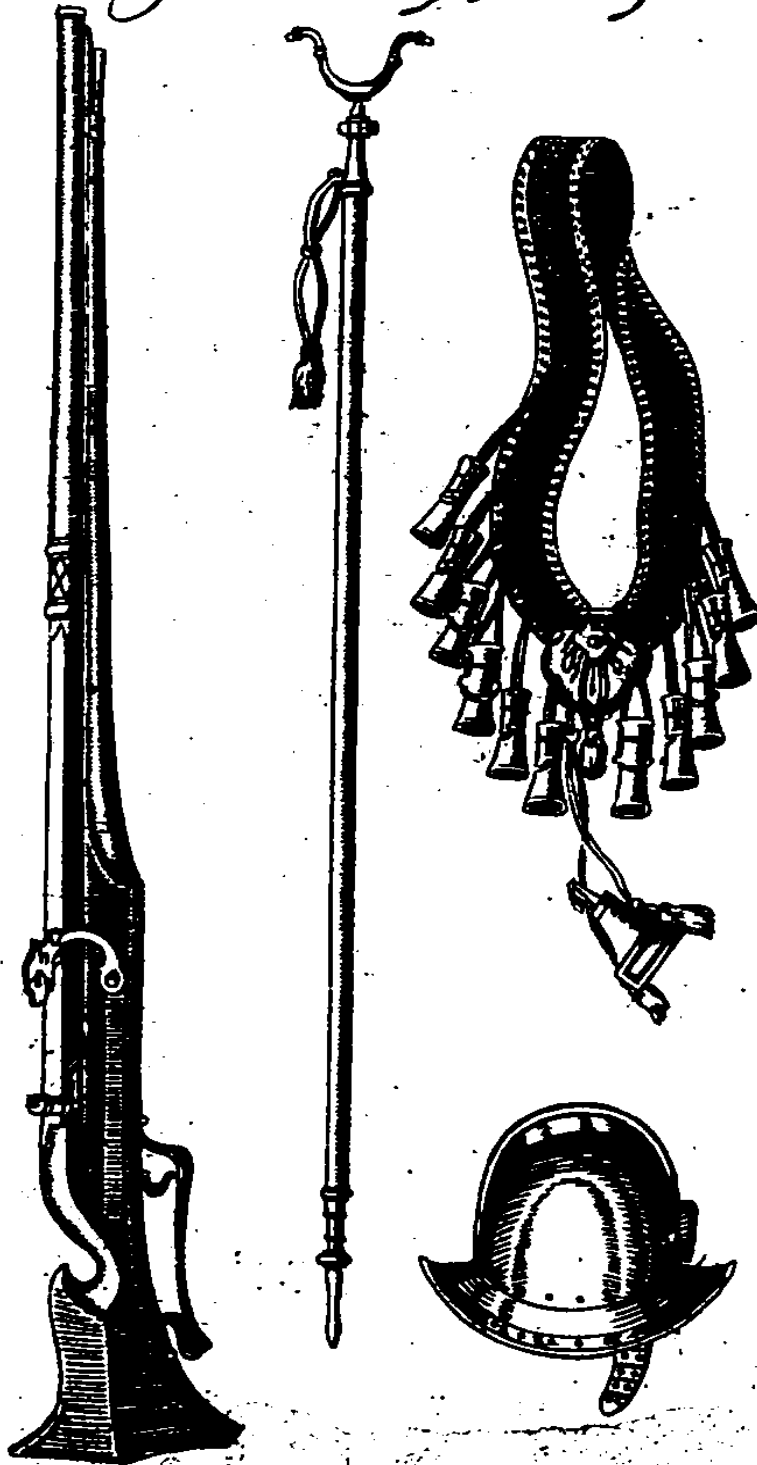
Cap. 50.

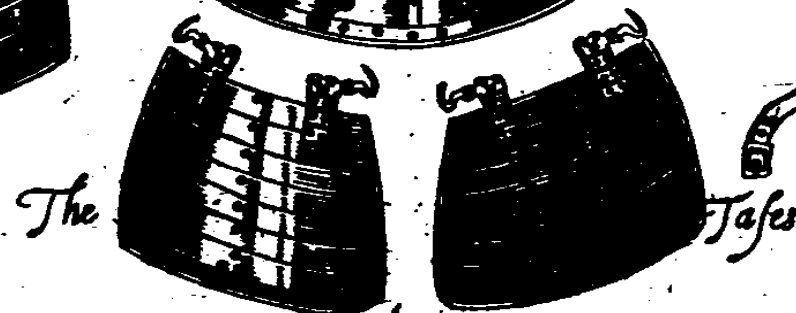
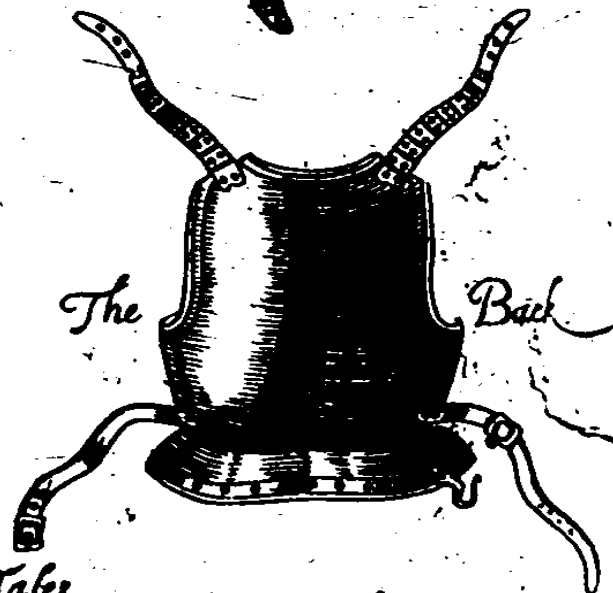
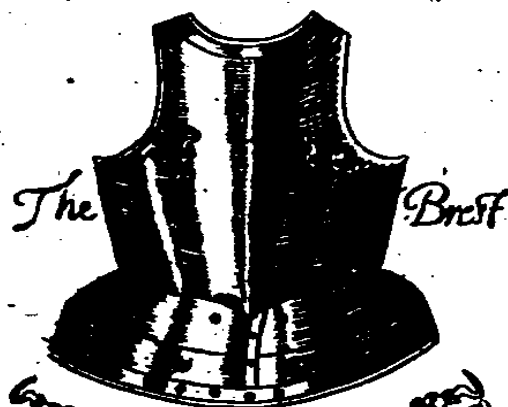
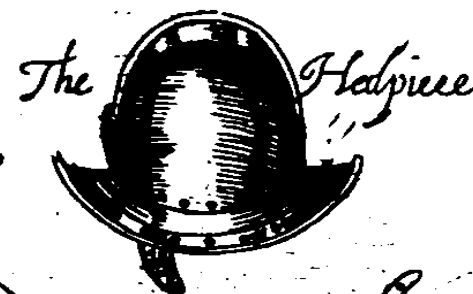
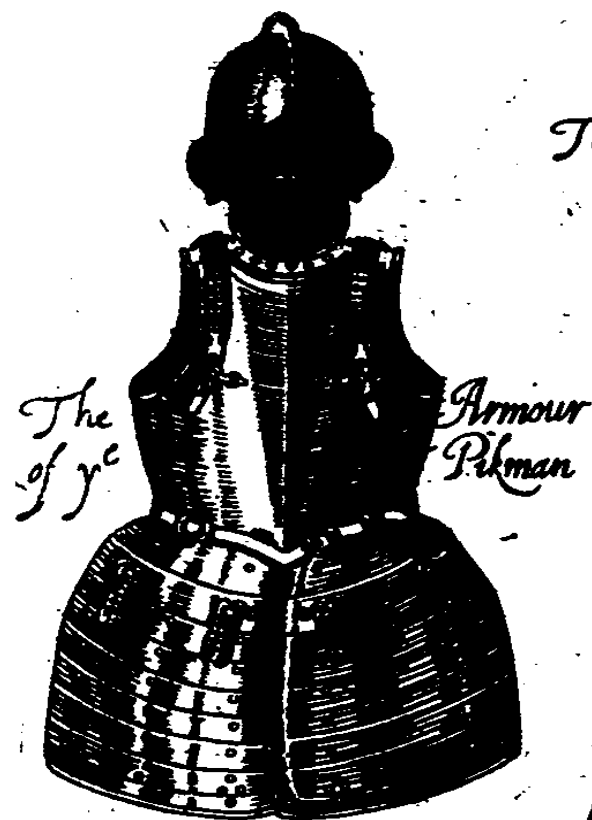
The overwinging battail

The adverse battail



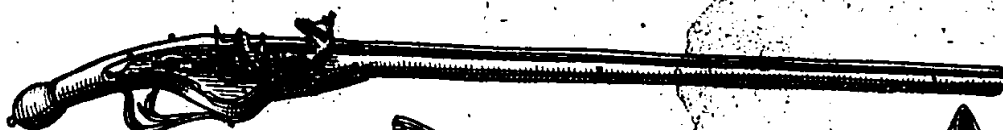
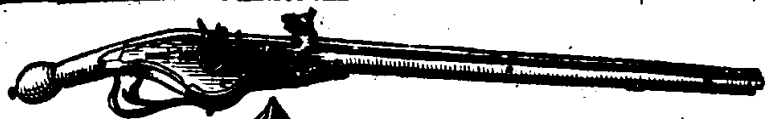
The armes of y^e Musketer





The Pike

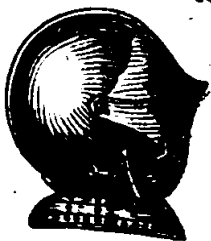
A pike, a long spear or polearm. It is shown in a three-quarter view, highlighting the shaft and the head.



The headpiece.



The headpiece close.



the

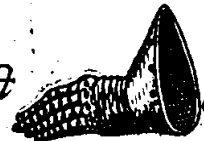
right
let



gant

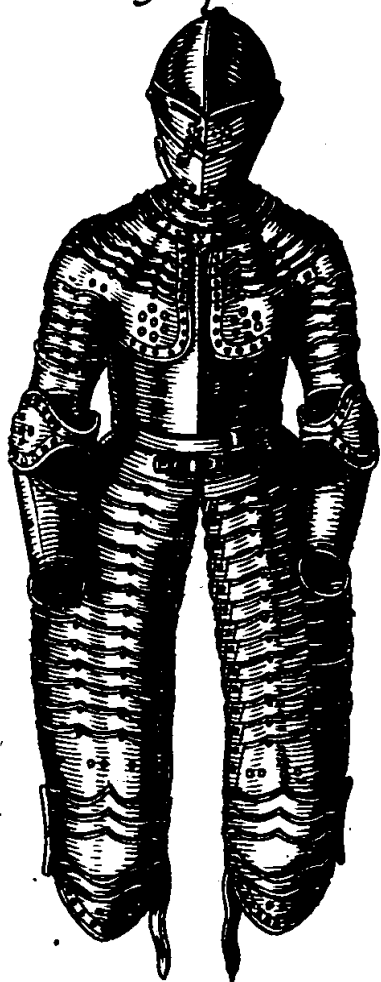
the

left
let

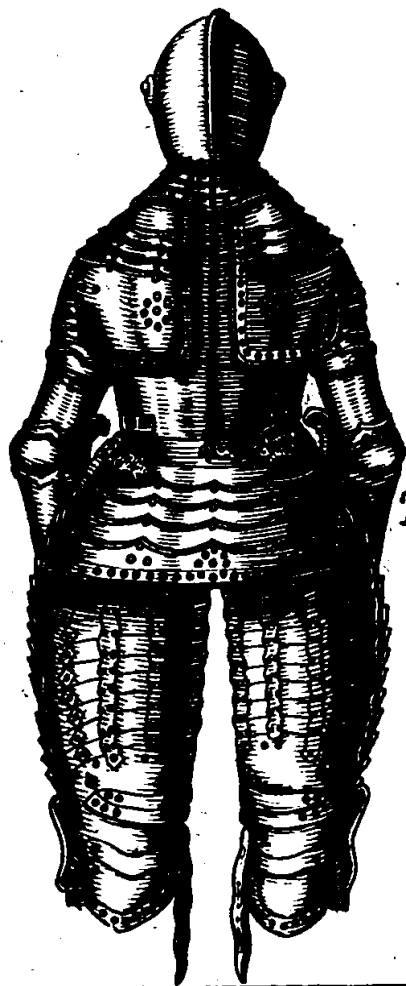


gant

The forepart

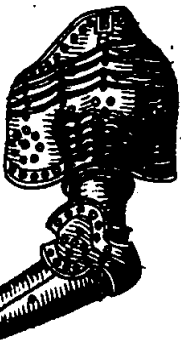


The backe



The

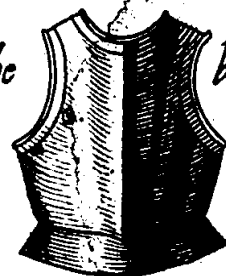
Vam-



left

brace

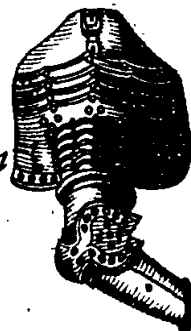
The



breast

The

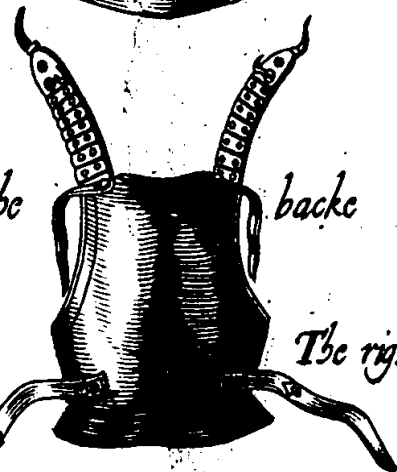
Vam-



right

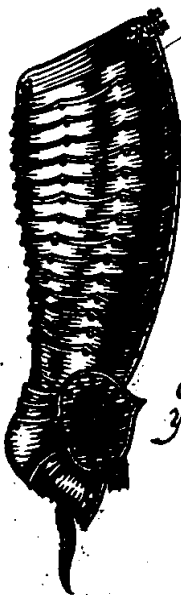
brace

The



backe

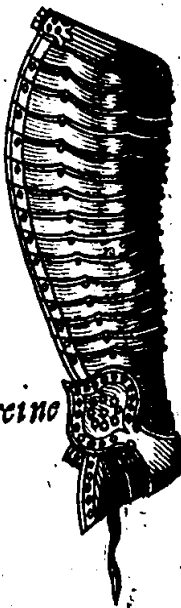
The left



cuisse

the

The right



cuisse

de reyno

